# GCCS System Integration Support

# SOFTWARE USER'S MANUAL
# FOR
# GCCS VERSION 2.1

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JOINT INTEROPERABILITY AND ENGINEERING ORGANIZATION


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FOR

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# TABLE OF CONTENTS

## 1.0    SCOPE

### 1.1    Identification

This document provides high-level identification and guidelines for the functions and applications in Version 2.1 of the Global Command and Control System (GCCS).

### 1.2    GCCS System Overview

GCCS is a command and control ($C^2$) system supporting the Joint Chiefs of Staff (JCS) and Commanders in Chief (CINCs) in managing military assets.  GCCS supports six mission areas (operations, mobilization, deployment, employment, sustainment, and intelligence) through eight functional areas:

- Threat identification and assessment
- Strategy planning aid
- Course of action development
- Execution planning
- Implementation
- Monitoring
- Risk analysis
- Common tactical picture.

The GCCS implementation approach provides an infrastructure supporting migration of selected $C^2$ applications into a client/server, open systems environment.  The GCCS infrastructure includes:

- A workstation client/server environment incorporating Sun SPARCservers/centers, Sun SPARCstations, and Intel 486 Workstations operating on an Institute of Electrical and Electronics Engineers (IEEE) 802.3 Local Area Network (LAN).

- A GCCS Executive Subsystem (GES), which resides on the Sun SPARCserver and allows the user to launch GCCS applications residing on the Sun SPARCstation or the Sun SPARCserver.

- An Information Management Subsystem (IMS), which resides on the Sun SPARCserver and provides a single access point for Time-Phased Force Deployment Data (TPFDD) data management among GCCS subsystems and between GCCS and the Distributed Processing System (DPS) 8(000).

- A Reference File Manager (RFM) that is selected from the GES menu.  RFM does for selected reference files what IMS does for TPFDD.  RFM offers a menu of selected Joint Operations Planning and Execution System (JOPES) reference files and an associated list of the GCCS applications that require access to (or updates from) each file.

- A communications capability, which provides data transfer facilities among workstations, server, and the DPS 8(000).

## 1.3 Documentation Overview

This document details the many features of GCCS Version 2.1 and how users will be able to access the applications.  This document is not intended to provide detailed instructions on the use of each application included in GCCS Version 2.1.  Brief instructions for the Common Operating Environment (COE) and the mission applications are included in this document, with references to the applicable User's Guides/Manuals for more details.  Section 2 provides a list of the referenced documents for the software products included in GCCS, as well as any military standards that are referenced in this document.

## 2.0    REFERENCED DOCUMENTS

### 2.1    Government Documents

- *Global Status of Resources and Training System (GSORTS) User's Guide*, dated 19 August 1994.

- *Joint Flow Analysis System for Transportation (JFAST) User's Guide*, Version 6.0, dated 6 January 1995.

- *Logistics Sustainment Analysis and Feasibility Estimator (LOGSAFE) User's Manual*, dated 1 April 1993.

- *Unified Build 2.1 User's Guide Volumes 1 and 2*, dated 15 July 1994.

- *Unified Build 2.1 Training Manual*, dated 15 July 1994.

- *Users Manual for the Force Augmentation Planning and Execution System (FAPES)*, dated 22 July 1994.

- *Joint Engineer Planning and Execution System (JEPES) User's Manual*, dated 30 September 1994.

- *Medical Planning and Execution System (MEPES) Core Users Manual*, dated 1 November 1995.

- *Requirements Development and Analysis (RDA) Software User's Manual*, dated 7 August 1995.

- *Evacuation File Maintenance and Retrieval System (EVAC) User's Manual*, dated 1 September 1985.

- Draft *Software User's Manual (SUM) for the Airfields System*, dated 28 February 1995.

### 2.2    Non-Government Documents

- *Applix Graphics*, dated October 1993.

- *Applix Mai*l, dated October 1993.

- *Applix Macros*, dated October 1993.

- *Applix Spreadsheets*, dated October 1993.

- *APPLIXware Getting Started*, dated October 1993.

- *Applix Words*, dated October 1993.

- *DART User's Manual - Build 3.2*, dated March 1993.

- *Global Transportation Network (GTN) Users Manual*, dated 24 January 1995.

- *Theater Analysis and Replanning Graphical Execution Toolkit (TARGET) Users Manual*, dated 30 December 1994.

- *GCCS/Air Tasking Order (ATO) Functions Users Manual*, dated 1 March 1994.

- *User's Manual for the Joint Staff Evacuation (EVAC) System*, dated 26 July 1995.

## 3.0      EXECUTION PROCEDURES

### 3.1      GCCS Top Level Procedures

#### 3.1.1    Startup

After the system has been turned on and booted, the GCCS Workstation logon window is displayed in the foreground of the globe.  The operator can now log on to GCCS with a valid user name and password. Password accounts will be established by the site's GCCS System Administrator (SA).

#### 3.1.2    GCCS Main Window

The GCCS Main Window contains the following components:

- Title Bar,
- Status Bar,
- Desktop Menu Bar, and
- Launch Window.

#### 3.1.3    Title Bar

The Title Bar contains from (left to right) the official GCCS version number, the classification, and the time. Valid classifications include Unclassified, Confidential, Secret, and Top Secret.  The time can be expressed in one of two possible formats:  Date-Time-Group (DTG) or Julian format.

#### 3.1.4    Status Bar

The Status Bar contains information pertaining to the user account, position, project, and overall system status.

### 3.1.5     Desktop Menu Bar

The Desktop Menu Bar (from left to right) contains the following menus:

- System,
- Prefs,
- Tools,
- Chart,
- Views,
- Comms,
- Misc,
- Help, and
- Support.

### 3.1.5.1  System

The System menu contains the following options:

- The **Find Launch** option provides the capability to return the launch window into the foreground.

- The **Stop Program** option is used by the operator to close a program that was suspended as the result of a problem.  When this option is selected, the user is presented with a list of program(s) to choose for closure.

- The **Print Screen** option allows the user to make printouts of selected windows or the entire screen.  Once this option has been selected, the operator is prompted for information regarding specifics of printing task including:  whole screen or window, with or without frame, portrait or landscape, desired security classification of printout, and any warning labels as necessary.

- The **Select Printer** option allows the user to select the desired printer.

- The **Print Control** option invokes the Print Control window, which allows the user to obtain information on all printer queues.  This function can be exited by clicking on the **Quit** option under the File menu in the main Print Control window.

- The **System Status** option provides the capability to monitor the status of the various workstations on the network.

- The **Restart** option allows for system reboot.

- The **Power Down** option allows the operator to shut down workstation functionality in an efficient manner.

● The **Close All** option allows the operator to close all windows on the screen.

● The **Logout** option allows the user to exit the Desktop system.

### 3.1.5.2 Prefs

The Prefs menu contains the following options:

● The **Preferences** option allows the operator to configure the desktop to their individual preferences regarding color, font, mouse, notifications and alarms, and launch window contents.

● The **Time Format** option allows the user to display the system time for the desktop in either DTG or Julian format.

● The **Change Profile** option provides the capability to change the current default profile. The new profile becomes effective immediately for message notification and program selection.

● The **Change Password** option provides the capability to change the current password.

### 3.1.5.3 Tools

The Tools menu contains the following options:

● The **Folder** option provides the capability to create, view, and manipulate folders. Folders are organizational tools that allow for the separation of various types of data into discrete and manageable entities. Elements are anything that can reside in folders including other folders, overlays, custom text, graphic images, etc.

● The **Images** option allows the user to specify screen images for display on the Briefing Display System (BDS) display monitor located on the network. A user can specify one image at a time for display or to predefine a set of images within a folder to be displayed:

  - **Grabber** provides the capability to specify a set of images for storage in a folder cascade or to select images from folders for subsequent display on the BDS display monitor.

  - **Send** to BDS provides the capability to send the selected image to the BDS display.

  - **Clear BDS** provides the capability to clear the image that was previously sent to the BDS display.

● The **Talk** option invokes the Talk Startup window, which provides the capability for electronic communication via keyboard with users logged on at other workstations. This option can be

terminated by selecting the **Exit** command button on the Talk Startup window control panel or selecting the **Exit** option under the File menu within the Talk Startup window.

- The **Words** option invokes the Applix Words function. Applix Words is a full-featured word processing and document formatting system. It is designed to create many different types of documents, from short memos to extensive reports. An Applix Words document can contain text as well as materials created in Applix Graphics, Spreadsheets, and Equations. The APPLIXware word processing application can be terminated by selecting the **Exit** option under the File menu within the main Word Processing Window.

- The **Graphics** option invokes the Applix Graphics function. Applix Graphics is a versatile graphics package that provides the capability to generate figures, diagrams, illustrations, and technical drawings. These pictures can be made into viewgraphs for presentations or can be included in Words documents to enhance written presentations. The Applix Filter Pack allows the user to import and export different types of graphic files. Applix Graphics includes toolkits for drawing various objects such as lines, curves, rectangles, rounded rectangles, ellipses, polylines, polygons, and text. All of these objects can be re-arranged, flipped, rotated, and resized. In addition, the object's color can be changed and filled in as desired using a large color palate. This graphic package also has the capability to draw the shadow of a given object. The APPLIXware Graphics application can be terminated by selecting the **Exit** option under the File menu within the main Graphics window.

- The **Spreadsheets** option invokes the Applix Spreadsheets function. Applix Spreadsheets is an effective and efficient calculation tool that can be used to organize and analyze numerical data. The Applix Spreadsheets application provides the following:

    - A ledger-type worksheet to present and store data, along with the commands and options required to maintain data.

    - Built-in functions that automate tasks ranging from simple addition to executing complex formulas.

    - Automatic charting in a variety of chart formats that are dynamically updated when the user modifies the spreadsheet.

    - The capability to insert the Spreadsheet document into an Applix Words document where the inserts are dynamically updated as the data is changed.

    - Database functionality by allowing the user to create a database based on spreadsheet data and then perform queries on that data.

The APPLIXware Spreadsheets application can be terminated by selecting the **Exit** option under the File menu within the main Spreadsheet window.

- The **Email** option provides the capability to send and receive e-mail using the APPLIXware Email utility.

- The **Show Clipboard** option displays a clipboard to be used for cut and paste activities.

- The **Calculator** option displays a calculator utility screen that provides pocket calculator functionality.

- The **Magnifier** option allows the operator to magnify desired regions of the screen for increased visibility.  This utility is particularly useful for enlarging cluttered areas on maps, text, or graphics.

- The **Clock** option continuously displays the system time in analog form.

- The **Cover Screen** option provides the capability to "hide" the actual screen contents so it appears to be blank.  This is useful in cases where visitors are cleared to be in the command center but not to view specified screens.  Uncover Screen option returns the screen's original contents.  Cover Screen and Uncover Screen are mutually exclusive options.

### 3.1.5.4  Chart

The Chart menu contains the following options that provide the capability to make changes to the Joint Maritime Command Information System (JMCIS) tactical display:

- The **ADRG CD Maps** (Arc Digitized Raster Graphics Compact Disk) option provides the capability to copy ADRG maps that are stored on CD.

- The **Other CD Maps** option provides the capability to view Compressed Aeronautical Chart (CAC), Digital Chart of the World (DCW), or Digital Nautical Chart (DNC) maps that are stored on a CD.  This option only allows the user to view these various maps, but does not allow them to be loaded onto the hard disk.  The CD must be present in a workstation within your network to use this option.

- The **System Chart** option invokes the JMCIS Chart.

- The **Chart Insets 1, 2, and 3** options provide the capability to place up to three new, smaller map window(s) "over" the main JMCIS tactical display window.

- The **Restart Chart** option is used to turn off the current tactical display and turn it back on again.  In addition, this option is used to refresh the current tactical picture.

### 3.1.5.5  Views

The Views menu contains the following options:

- The **Set View Filter** option provides the capability to create and apply view filters for individual commands. When a given view filter is created for a command, that filter can be used to view only those specific tracks received from that command.

- The **Activate Window** option is used along with the Set View Filter option to view only those tracks received from a specified command. This option provides a new, smaller chart window on top of the main JMCIS tactical chart and only displays those tracks received from the specified command.

### 3.1.5.6  Comms

The Comms menu contains the following options that provide the capability to manage and process both incoming and outgoing JMCIS transmissions:

- The **Local Opnotes** (operator notes) option provides the capability to create free format operator notes (opnotes) in a word processing type of environment, edit existing opnotes, and transmit opnotes to other command centers.

- The **Incoming Opnotes** option allows the user to view a log of the incoming opnotes and view the text of selected opnotes from the log.

- The **Operator Messages** option provides operators to communicate with other operators within the same LAN at a given command center.

- The **Log Mgr** (Manager) option allows users to create and manage multiple incoming message logs, in addition to the main Incoming Message Log. A maximum of 135 logs can be created with each log containing up to 1000 messages.

- The **Incoming Msg Log** retains up to 1000 messages received by the Unified Build (UB) system. When message capacity exceeds 1000 only the most recent 1000 messages are retained, and the older messages are automatically deleted by the system. This log provides the capability to review incoming messages, re-enter messages into the system, decode any previously undecoded messages, and retransmit messages via another communications channel. The user has the option to display all incoming messages (up to the last 1000) in the system, or only the last 50 or 200 messages.

- The **Outgoing Msg Log** maintains the list of all outgoing messages that have previously been transmitted by the UB system. These various messages include opnotes, contact reports, and overlays. As is the case with the Incoming Msg Log, the system only retains the last 1000 messages. When more than 1000 messages have been transmitted, only the 1000 most recent are retained with the older messages being automatically deleted. The Outgoing Msg Log provides

the capability to review outgoing messages, re-transmit messages, edit, and print messages. The user has the option of displaying all of the outgoing messages (up to the last 1000 transmitted), or only those messages of a specified type.

- The **Binary Msg Log** option allows the user to view a log of binary messages that have been sent to a given operator's workstation. The user has the option to receive binary messages in one message or in segments. These in turn can be retransmitted in one message or in segments to other workstations as desired.

- The **Msg Headers** option allows operators to create general message headers for outgoing messages. General Message Headers include from and to information, message classification, and message priority. These constructed general message headers can then be saved and re-used for future message transmissions.

- The **Auto-Forward Table** option allows the operator to automatically forward both incoming and outgoing messages (up to 500 total) to another destination.

- The **Decoder Status** option allows the operator to view the messages that are sent to the decoder. In addition, this option can be used to verify that messages are being properly decoded and to view any errors due to messages sent with incorrect formats.

- The **Message Alerts** option provides the capability to view selected messages from the Incoming Message Log (ILOG) or messages as they are received by the ILOG from incoming transmissions. This function allows the operator to set up the specific alert criteria for the incoming messages.

- The **Communications** option provides the capability to specify the various settings that are required for communications between the host system and other systems. In addition, this option can be used to start, configure, monitor, delete, and stop the various communications interfaces that send and receive messages between UB and other computer systems.

- The **Channel Status** option allows the operator to monitor the status of all active communication channels. Only the channel name is displayed for link channels. Other channels have additional information displayed including times of the most recently received and transmitted messages, any associated channel filters, and the current number of unprocessed (backlogged) messages on the given channel.

- The **DDN Host Table** allows the operator to view a list of host names and their relationship to the operators site. The host names are used in communications among different sites when using a network-type communication channel. Operators are only permitted to view this table; however, the site SA has full edit privileges. See the *JMCIS System Administrator's Manual* for additional details.

- The **STU III Directory** option allows the user to view a list of organizations that are set up to receive messages sent via a STU III.

- The **EMAIL Table** option is used to create, update, maintain, and delete a list of sites that can be used for communications with the EMAIL channel. All communications with the Joint Maritime Intelligence Element (JMIE) database must be transmitted via the EMAIL channel.

- The **DDN Net Ping** option is used to determine whether or not the operator's site is able to communicate with selected host names.

- The **NAV Update Rate** option is used to set a time interval for updating and archiving the position of ownership on the JMCIS tactical display.

### 3.1.5.7 Misc

The Miscellaneous (MISC) menu contains the following options:

- The **System Version** option provides the current version number of the software or corresponding information on the current GCCS *Version Description Document (VDD)*.

- The **System Status** option provides the capability to monitor status information regarding track totals, Force Over-the-Horizon Track Coordinator (FOTC) data, V6-related data, terminal data, messages, and broadcasts.

- The **Track Status** option is used to display the current number of tracks in the system. The track totals include tracks, ambiguities, and associated tracks. All are listed by track type. The list of valid track types includes: Platform, Link/ACDS, Emitter/ELINT, Acoustic/Sub, Unit, Land, etc. In addition, the totals for Real-World, Live-Training, and Simulated tracks are all listed by their availability levels (OTH, Local, or Terminal).

- The **File Status** option provides the capability to monitor statistical information about selected files in the system. The number of entries are reported for the following files: Report Log, Incoming Msg Log, Outgoing Msg Log, Opnotes, XREF Table, PIF Don't Care, Synonyms, IFF Mode 2 Nicknames, Pimtracks, and Overlays.

- The **System Services** option is used to monitor the status of the important background processes running within UB on each of the computer systems in the network. These background processes include the following: Input Communications Manager (ICM), Message Processing System (MPS), Output Communications Manager (OCM), Broadcast Manager (BCST), Program Communications Manager (PCM), Tactical Database Manager (TDBM), Finder, Importer, ALERTD, Chart, and Wide Area Network (WAN).

- The **Screen Alert Filter** is used to specify the type of alerts to be displayed on the screen. The alerts are usually generated by receipt of a certain type of message (i.e., track message) or a system-generated event, where operator notification is essential for continued system reliability. These 15 events currently generate alerts to the operator: Opnote, FOTC Situation Report (SITREP), High Interest Track (HIT), Target (TGT) Track, Overlay, Pimtrack, Four Whiskey, Screen Kilo, Track Database Full, V6 Queue Full, TDBM Down, FOTC Mode, DDN Timeout, Operator Messages, and NIPS Track Merges.

- The **Alert Log** option is used to display a list of all the alerts that have been generated for the system.

- The **Archive-Restore** option is used to copy files for backup from the UB Clipboard to a floppy disk, magnetic tape, or a designated area on the hard disk at a given workstation. This option can also be used to restore these various files to the Clipboard from the backups.

- The **Printer Chooser** option allows the user to assign a default printer and monitor the current print queue. Prior to any operator action, the SA must designate the printer(s) that are available for the network. See the *GCCS System Administration Manual* for additional details.

- The **Trouble Reports** option allows operators to add, modify, and delete trouble reports based on problems that have occurred on the system.

- The **Passdown Watch Log** option provides users with a written watch-to-watch transfer of important information. Outgoing watch-standers can use this log to notify incoming watch standers about tracks of interest, areas of interest, problems, upcoming events, training, etc., to provide for a more efficient and accurate transition of the watch situation.

- The **Screen Saver** option is used to automatically turn off the picture on the screen after an operator-specified period of non-usage. Screen Saver generates displays different screen patterns to avoid possible screen damage.

### 3.1.5.8  Help

The Help menu contains the following options:

- The **Chart** option provides help pertaining to options on the Chart menu.

- The **Comms** option provides help pertaining to options on the Comms menu.

- The **Misc** option provides help pertaining to options on the Misc menu.

- The **Support** option provides help pertaining to options on the Support menu.

- The **On Context** provides general information regarding how to obtain context-sensitive help on a given item.

- The **On Window** option provides general information regarding the operations involved in the specific window from which the help was requested.

- The **On Keys** option provides information regarding the use of function keys, mnemonics, and keyboard accelerators.

- The **Index** option provides a search-capable index for all help-related information.

- The **On Help** option provides basic information regarding the use of the help functionality.

- The **On Version** option displays the name, version, and date of the computer program.

### 3.1.5.9 Support

The Support menu contains the following options:

- The **JMIE Database** option is used to send a request (query) to the JMIE Database for information on commercial and military ships that may not be available to the UB track database at a given site. The Log suboption allows the user to view a list of queries that have been sent and any JMIE responses to those queries. The Help suboption provides on-line assistance.

- The **EMCON Status** (Emission Control) option provides the operator with the capability to edit and monitor EMCON status information for one or more selected tracks.

### 3.2 Launch Window

The Launch Window appears in the middle of the screen and contains icons that can be used to launch various desktop functions and applications based on the operator selections made in the Launch List suboption under the Preferences option within the Prefs menu. Any of these applications can be launched by double clicking the left mouse button on the icon representing the desired application. The options presented to the operator are determined by the Site SA at the time the GCCS account and profiles are established.

### 3.2.1 Desktop Functions within Launch Window

A number of Executive Manager (EM) functions are not invoked via a menu but are executed within the main launch window. The desktop functions identified by icon within the main launch window include:

- The **Audit Log** function invokes the Security Audit Log window that provides the Site SA with access to audit information including DTG, Workstation, User, Granularity Level, Application (APP), and Audit Event. The Site SA has the option to print, archive, or purge entries in the log.

This function is terminated by clicking the left mouse button on the **Exit** command button at the bottom right of the main Security Audit Log window.

- The **CHRONLOG** (Chronological Log) function is an extension of PLOG that provides multiple positions within a project to be incorporated into one chronological listing for that project. With appropriate privileges, the user can also generate entries directly on the Chronlog. This function can be exited by clicking on the **Exit** option under the File menu within the main Chronlog window.

- The **CONTROL** (System Controller) function provides the capability for the Site SA at a GCCS workstation to manage processes and execute UNIX commands on any other GCCS workstation on the LAN. This function can be exited by clicking on the **Exit** option under the File menu within the main System Controller window.

- The **DB SLCT** (Select Oracle database) function displays a Select Oracle Database pop-up window that notifies the Database Administrator of the current Database and displays a list of Database Locations/Names and corresponding host IP addresses. The Site Database Administrator is also prompted to "Enter a new DB Location/Name (by #) or (q to quit):" New DB Location/Names that can be selected by the Site's Database Administrator include, EUCOM, PACCOM, TRANSCOM, etc. The DB SLCT function can be terminated by entering a "q" followed by <return> or by selecting the Close option under the Window Menu Button located on the far left of the DB SLCT main window title bar.

- The **DICTION** (Data Dictionary) function allows users to analyze the underlying structure of a selected database. In addition, it allows users to obtain definitions (entered by the Database Administrator) of each database field associated with any table in the selected database. The DICTION function also allows users to access database rules, views, tables, defaults, triggers, and procedures for the selected database. This function can be exited by clicking on the **Exit** option under the File menu within the main Data Dictionary window.

- The **DISPLAY** (Custom Display) option allows the user to select and display any template that has been previously created and saved in a format suitable for briefings. Templates are defined as briefing charts created by the Template Editor (TEDIT) and/or map charts created via the Map Overlay Editor (MOE). This function can be exited by clicking on the **Exit** option under the File menu within the main Custom Display window.

- The **FTPtool** option provides a method to transfer files from a remote computer to a user's computer using the UNIX-based commands for the File Transfer Protocol (FTP). FTPtool uses point and click procedures for various FTP functions. FTPtool is invoked by double clicking the left mouse button on the *FTPtool* icon within the main launch window. The FTPtool Version 4.3 window is displayed as a result of this action. All status and error messages are displayed at the bottom of the FTPtool Version 4.3 window, while remote FTP directories are displayed above the scrolling text field. There are six buttons across the top of the FTP Version 4.3 window:

- **Connect** is used to open the Host Information window. The Host Information window allows the operator to select a host from a list of available hosts or to add a new host.

- **File** provides the options to copy, delete, list, compress, uncompress, transcribe archive record (TAR), and extract files.

- **View** allows the operator to view remote and local files, the local directory list, session log, Host Information window, transfer status window, batch schedule window, and the About FTPtool window.

- **Properties** allows the user to view the Tool Properties window, the local and remote file properties, and allows the operator to save the current window layout of FTPtool.

- **Help** provides general information on the FTPtool.

- **Abort** is only active when a file is transferring, and aborts the current transfer in progress. The operator can exit the FTPtool by selecting the **Close** option on the Window Menu Button at the top left of the Xterm window border.

- The **MM** (Message Manager) function allows users to create, coordinate, save, send, respond to, obtain status of, and release messages. In addition, it permits users to create and save attachments and distribution lists. This function can be exited by clicking on the **Exit** option under the File menu within the main MM window.

- The **MOE** (Map Overlay Editor) function supports the creation and modification of graphical map overlays. The overlays consist of annotation objects and icons. Annotation objects are simple geometric drawings (i.e., lines, rectangles, polygons, circles, points, and text) that are tied to a specific geographical map location. Icons are complex symbols representing military units and are related to actual military units in the database. MOE can display detailed information for any icon. In addition to overlays, MOE has the capability to generate and save composites, which are comprised of a collection of overlays saved as a single entity. This function can be exited by clicking on the **Exit** option under the File menu within the main MOE window.

- The **MONITOR** (System Monitor) function allows the Site SA or GCCS operator to monitor the system status by displaying the processor status, logged-in user information, error log, and by sending and receiving system alarms. This function can be exited by clicking on the **Exit** option under the File menu within the main System Monitor window.

- The **MTF Editor** (Message Text Format) function allows for generation of fully formatted United States Message Text Format (USMTF) messages by providing message templates to aid in message creation. A message can be prepended with an ACP126, DD173, or JANAP128 header. When invoked, the user can construct the desired USMTF message by selecting from among the pre-defined USMTF templates. When a given template is selected, a list of pre-

defined "sets" are displayed that comprise the particular USMTF message.  When each set is "expanded," the list of fields pertaining to the particular set is displayed and the user is prompted to enter the appropriate data.  This function can be exited by clicking on the **Exit** option under the File menu within the main MTF Edit window.

- The **PHONE** function allows the user to create, access, and maintain telephone lists.  Each entry in these lists contains four telephone numbers.  As many telephone lists as required can be generated to support various working groups, etc.  This function can be exited by clicking on the **Exit** option under the File menu within the main Phone List window.

- The **PLOG** (Position Log) function is an automated journal that allows for each position to capture important events and to document any appropriate action taken.  This log can also be used to pass information to other operators at that position.  Separate positions within each project may nominate entries for inclusion in the Chronlog for that project.  This function can be exited by clicking on the **Exit** option under the File menu within the main PLOG window.

- The **PROFILES** (Profile Manager) function allows the Site SA to create, edit, or delete user profiles that contain the positions, directorates, divisions, branches and sections of the individual being profiled.  This function can be exited by clicking on the **Exit** option under the File menu within the main Profile Manager window.

- The **RREM** (Run Remote) function allows users to access an application on a remote host.  When invoked, the Run Remote pop-up window appears prompting the user to:  Enter the remote host name using the format, "host.domain."  This function can be exited by selecting the **Close** option under the Window Menu Button located on the far left of the RREM main window title bar.

- The **SECURITY** (Security Manager) function allows the Site SA to manage the database of users including adding users, deleting users, and editing user information.  This function can be exited by clicking on the **Exit** option under the File menu within the main Security Manager window.

- The **SS** (System Services) function allows the Site SA to use all capabilities provided by System Services.  It allows the SA to invoke these capabilities using the GCCS System Services main menu located within the System Services main window.  Specific capabilities that appear on the GCCS System Services menu include:  System Service Utilities, Journalling, Monitors, Audit Reports, Plan Management, Merge TPFDD, and Create TPFDD File.  In addition to the main menu and subsequent cascading menus, this function also provides access to help via the Help command button, a dictionary of acronyms via the Dictionary command button, and print capability via the Print command button.  All of these buttons are located at the bottom of the System Services main window.  The SS function can be terminated by selecting the **Exit** command button located at the bottom right of the SS main window.

- The **TCC ESI** (Transportation Component Command External System Interface) function provides the United States Transportation Command's (USTRANSCOM) three component commands: the Air Mobility Command (AMC), the Military Sealift Command (MSC), and the Military Traffic Management Command (MTMC) with the capability to review specified Operational Plan (OPLAN) information. In addition to being invoked via the TCC ESI icon, this interface can be invoked by the JOPES Navigation (JNAV) application. For those systems with a graphical user interface-based (GUI-based) JNAV window, TCC ESI is invoked by pressing the **START** icon next to "TCC External System Interface" within the JNAV Netscape-based GUI window. For those systems with a text-based JNAV window, TCC ESI is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "TCC External System Interface" text and pressing <enter>. When invoked, the TCC Interface Subsystem menu window appears with the user prompted to enter an OPLAN identification number. The user is also presented with three radio button options to select: Supported CINC Validation, Supported CINC Status Flag Override, or Reports and Utilities. When the desired entries are completed, the user can either proceed by selecting the **Continue** command button at the bottom right or selecting the **Cancel** button to exit.

- The **TEDIT** (Template Editor) function provides the capability to create, edit, and delete various templates that are used in the preparation of briefing charts. In addition, TEDIT has an interface to the GCCS database and computational support. This function can be exited by clicking on the **Exit** option under the File menu within the main TEDIT window.

- The **USER ROLES** function invokes the scrollable User Roles window that allows the Site SA to add, delete, edit, copy, and print user roles by actual Role, Account Group, and Classification. This function is terminated by clicking the left mouse button on the **Exit** command button at the bottom right of the main User Roles window.

- The **XLOCK** function provides a security screen feature that appears as a screen saver program. When XLOCK is invoked, the screen is covered by a screen saver until the user clicks the left mouse button. After clicking the left mouse button, the screen cover is removed and the user is prompted to "Enter password to unlock; select icon to lock". If the user clicks on the small screen saver icon, the screen cover feature is returned; however, if the user enters the valid password followed by <return>, the screen will return to its original state.

- The **XTERM** function provides an X-Terminal window. The XTERM window can be exited by either typing **exit** at the prompt followed by a <return> or by selecting the **Close** option under the Window Menu Button located on the far left of the XTERM window title bar.

**3.3      Applications**

This section contains descriptions and execution procedures for every application available in GCCS Version 2.1.  Some applications may not be available to every operator at every GCCS site, depending on the rules established by the site's GCCS SA.

**3.3.1    AdHoc Query**

AdHoc Query (AHQ) is a part of the Scheduling and Movement (S&M) subsystem within JOPES.  AHQ allows the transportation and operation planning end users the capability to query S&M on the scheduling and movement requirements for a given OPLAN.  This capability provides a full-featured tool for constructing queries and reports.  AHQ also eliminates the need to know complex query languages, the need to memorize database schemas, and the need to know the location of data elements required for reports.  The only action necessary to construct a query is the designation of display fields.  The actions of a typical AHQ session include identifying display fields, selecting desired qualification criteria to limit the number of records retrieved, and selecting display field sort order.

The AHQ main menu consists of the following options:

- File,
- Specify,
- Summary,
- Run,
- View, and
- Query Families.

The **File** option allows the user to perform basic file operations on a given query.  When File is selected from the main menu, a cascading menu is presented with the following options:  New, Save Query, Save Query As, Print Query Results, Open Query, Open Query Results, Delete Query, Delete Query Results, Delete Graphics, Export Query, and Import Query.

The **Specify** option allows the user to identify desired query parameters.  When Specify is selected from the main menu, a cascading menu is presented with the following options:  Display Fields, Display Field Attributes, Group Attributes, Group Subtotals, Qualification Criteria, Banner Page, Format, and Graphics. The Graphics option (when used in conjunction with the View option) is particularly useful for later inclusion into briefing reports, etc.

The **Summary** option allows the user to view the current query parameters—this is an excellent way to review the query specifications prior to execution to ensure that the information to be retrieved has in fact been properly specified.  In addition to viewing the specification summary, this function also provides the capability to generate a hard copy printout of the information.

The **Run** option allows the user to execute a query after selecting the display fields. There are two methods for running a query: Immediate and Background. The Immediate method starts query execution right away; however, further AHQ processing will be unavailable until the query has generated. The Background method allows the user to execute the query as a background process and then continue working on the generation of a new query. The Run option also provides for query results to be viewed on the screen, saved to a file, or sent to the printer.

The **View** option allows the user to display text query results or graphics of those results on the screen. The View Query Results suboption provides access to saved query results. The View Graphics suboption allows the user to view the graphics generated as a result of completing the Specify Graphics function during definition of a query specification. Graphics data is initially displayed in the form of a bar graph, however, the following types of graphs are available: Bar, Line, Bar/Line, Pie Chart, Stacked Bar, and Side-By-Side.

A "query family" is a set of related individual queries. These sets of queries are intended to aid the user when the same series of queries need to be executed at regular time intervals. With the Query Family option, the user needs to define only the query family name to run the complete set all at once (as opposed to running each query separately). The Create suboption on the Query Families menu allows the user to define a set of queries that comprise a query family. The Modify suboption provides the capability to make changes to the composition of a query family. The Copy suboption provides the capability to copy the contents of one query family to a different query family.
The Delete suboption allows the user to delete desired query families from the database. The Run suboption is used to execute a given query family.

### 3.3.1.1  Initialization

The AHQ application and main window can be invoked by two methods. The first method is by double clicking the left mouse button on the **AHQ** icon within the GCCS desktop main launch window. The second method is via the JNAV application. For those systems with a GUI-based JNAV window, AHQ is invoked by pressing the **START** icon next to "Ad-Hoc Queries" within the JNAV Netscape-based GUI window. For those systems with a text-based JNAV window, AHQ is invoked by moving the cursor via the <tab> key to the START indicator immediately to the right of "Ad-Hoc Queries" text and pressing <enter>.

### 3.3.1.2  User Inputs

User inputs to the AHQ application are based on operator actions to create, retrieve, modify, delete, and print queries and query families on scheduling and movement requirements for a given OPLAN.

### 3.3.1.3  System Inputs

None.

### 3.3.1.4  Termination

The AHQ application is terminated by pressing the <F12> function key or selecting the **Exit** command button on the AHQ main window.

### 3.3.1.5  Restart

Not applicable.

### 3.3.1.6  Outputs

The AHQ application produces three basic types of outputs regarding the scheduling and movement requirements for a given OPLAN:

- Textual or graphical results of individual queries and query families viewed on the screen.

- Textual or graphical results of individual queries and query families saved in user-named files.

- Printed textual or graphical results of individual queries and query families.

### 3.3.2  Airfields

The Airfields application provides the Joint Staff and the GCCS community with a wide range of information about free-world airfields.  The Airfields-related data, supplied by the Defense Mapping Agency Aerospace Center (DMAAC), will be used as a crisis management tool in the event of national emergencies or world crises.  The current version of the Airfields data retrieval system produces on-screen or printed information for the "One-Line Summary Report."  This report produces a pre-formatted, one-line summary of information on airfields based on a set of user-specified criteria.  The "One-Line Summary Report" can be produced with a typical response time of a few seconds; however, when all airfields in a given country are requested, the number of report screens can be excessively large and cumbersome.  Therefore, users should exercise caution and limit the number of airfields requested in a given execution.

The "One-Line Summary Report" can be obtained by using the following retrieval criteria:

- Country Code,

- Country Code and BE Number,

- Country Code and Airfield Name,

- Country Code and International Civil Aeronautics Organization (ICAO)/Federal Aviation Administration (FAA) Code, and

- Country Code and Latitude/Longitude.

3-17

The specific criteria for Airfield selection is as follows:

- Highest Security Classification desired, up to Secret/No Foreign (NOFORN) dissemination;

- Airfield status (Military, Civilian, Joint, Active, Limited, Closed/Abandoned, Inactive, Heliport);

- Maximum or Minimum Load Classification Number;

- Maximum or Minimum Runway Length and Width;

- Runway Surface Type; and

- Maximum or Minimum Taxiway Width.

The database is populated with country codes of the world that are validated by the Defense Intelligence Agency (DIA). The user has the option of keying in a country code (if the code is known) or scanning a list and selecting a code from the list of names/codes that are presented on the screen.

### 3.3.2.1 Initialization

The Airfields application is invoked by double clicking the left mouse button on the **Airfields** (AFS) icon within the GCCS desktop main launch window.

### 3.3.2.2 User Inputs

User inputs include operator actions to retrieve, view, and print the specified Airfields-related information contained in the "One-Line Summary Report."

### 3.3.2.3 System Inputs

None.

### 3.3.2.4 Termination

Move the pointer to the **Exit** option on the File menu in the Airfields main window and click the left mouse button.

### 3.3.2.5 Restart

Not applicable.

### 3.3.2.6 Outputs

The output from the Airfields application is the Airfield-related data contained in the "One-Line Summary Report."  Additional reports will be available in subsequent versions of the Airfields software.

### 3.3.3    APPLIXware

APPLIXware is a commercial off-the-shelf (COTS) product line that provides adaptive applications and tools for various client/server applications.  The inherent flexibility allows the user to integrate and link text, graphics, database information, multimedia objects, and external applications.  APPLIXware contains intensive on-line help information, including context help, and detailed tutorials to provide assistance to users.

The six related APPLIXware Manuals (dated October 1993) produced by the APPLIX Corporation that describe the functionality in detail include:

- Getting Started,
- Applix Words,
- Applix Spreadsheets,
- Applix Graphics,
- Applix Mail, and
- Applix Macros.

There are two methods to access APPLIXware software within GCCS.  The first method is to select either the Words, Graphics, Spreadsheets, Mail, or Macros options under the Tools menu on the GCCS menu bar.  The second method is to double click the left mouse button on the APPLIX icon within the main launch window. The main APPLIXware window is displayed on the screen containing five icons that represent (from left to right) the following applications:

- Word Processing,
- Graphics,
- Spreadsheets,
- Mail, and
- Data (not available in GCCS).

### 3.3.3.1  Word Processing

The APPLIXware word processing application main window is invoked by double clicking the left mouse button on the **Word Processing** icon (far left) within the main APPLIXware window or by selecting the Words option under the Tools menu on the GCCS menu bar.  Applix Words is a full-featured word processing and document formatting system.  It is designed to create many different types of documents, from short memos to extensive reports.  A document generated by Applix Words can contain text as well as materials created in APPLIX Graphics, Spreadsheets, and Equations.  The APPLIXware word processing application can be terminated by selecting the **Exit** option under the File menu within the main Word Processing window.

### 3.3.3.2  Graphics

The APPLIXware graphics application main window is invoked by double clicking the left mouse button on the **Graphics** icon (2nd from left) within the main APPLIXware window or by selecting the Graphics option under the Tools menu on the GCCS menu bar.  Applix Graphics is a versatile graphics package that provides the capability to generate figures, diagrams, illustrations, and technical drawings.  These pictures can be made into viewgraphs for presentations or can be included in Words documents to enhance written presentations.  The Applix Filter Pack allows the user to import and export different types of graphic files.  Applix Graphics includes toolkits for drawing various objects such as lines, curves, rectangles, rounded rectangles, ellipses, polylines, polygons, and text.  All of these objects can be re-arranged, flipped, rotated, and resized.  In addition, the object's color can be changed and filled in as desired using a large color palate.  This graphic package also has the capability to draw the shadow of a given object.  The APPLIXware Graphics application can be terminated by selecting the **Exit** option under the File menu within the main Graphics window.

### 3.3.3.3  Spreadsheets

The APPLIXware spreadsheets application main window is invoked by double clicking the left mouse button on the **Spreadsheets** icon (middle icon) within the main APPLIXware window or by selecting the Spreadsheets option under the Tools menu on the GCCS menu bar.  Applix Spreadsheets is an effective and efficient calculation tool that can be used to organize and analyze numerical data.  The Applix Spreadsheets application provides the following:

- A ledger-type worksheet to present and store data, along with the commands and options required to maintain the data.

- Built-in functions that automate tasks ranging from simple addition to executing complex formulas.

- Automatic charting in a variety of chart formats that update dynamically when the user modifies the spreadsheet.

- The capability to inset the Spreadsheet document into an Applix Words document where the insets update dynamically as the data is changed.

- Database functionality by allowing the user to create their own database based on spreadsheet data and then performing queries on that data.

- External links to ranges of data in other Applix Spreadsheets, non-Applix Spreadsheets, and external databases (via Applix Data).

The APPLIXware spreadsheets application can be terminated by selecting the **Exit** option under the File menu within the main Spreadsheets window.

### 3.3.3.4 Mail

The APPLIXware mail application main window is invoked by double clicking the left mouse button on the **Mail** icon (4th from left) within the main APPLIXware window or by selecting the Mail option under the Tools menu on the GCCS menu bar. Applix Mail is the electronic mail component within APPLIXware. It integrates with the full suite of APPLIXware office automation applications including Words, Graphics, Spreadsheets, and Data. Applix Mail allows the user to send and receive mail messages, documents in APPLIXware (or other formats), and create mail rules to automatically perform certain mail-related tasks on incoming mail. Applix Mail also enables the operator to customize the mail GUI by creating user designed menus, macros, and express function buttons. In addition, Applix Mail allows for creating private and shared folders to organize received mail messages, and distribution lists to facilitate sending messages to groups of users simultaneously. The APPLIXware Mail application can be terminated by selecting the **Exit** option under the File menu within the main Mail window.

### 3.3.4     Automated Message Handling System

Term (AMHS) provides a user-friendly method to send and receive messages via the Automated Digital Network (AUTODIN). The AMHS Message database computer program uses a COTS software package called TOPIC. The TOPIC software package provides access to incoming AUTODIN messages, comeback copies (notification to the message writer that the message has been released), and coordination traffic. AMHS also provides connectivity to and interoperability with other Government agencies, allies, tactical users, defense contractors and other approved agencies external to the Defense Messaging System (DMS) community.

### 3.3.4.1 Initialization

AMHS is invoked by double clicking the left mouse button on the **AMHS** icon within the main launch window. Upon successful activation, the TOPIC introduction window is displayed along with legal notices about the software copyright. These are followed by a main TOPIC window called the Query Manager window.

### 3.3.4.2 User Inputs

Users inputs involve actions by the operator to view, print, or delete selected messages.

### 3.3.4.3 System Inputs

Incoming messages are received via AUTODIN.

### 3.3.4.4 Termination

AMHS is terminated by moving the pointer to the File menu on the Query Manager window and selecting the **Exit AMHS** option.

### 3.3.4.5  Restart

Not applicable.

### 3.3.4.6  Outputs

Messages are transmitted to AUTODIN.

### 3.3.5 Dynamic Analysis and Replanning Tool

Dynamic Analysis And Replanning Tool ( DART)  will reside on the Sun SPARCserver.  It is a TPFDD editor and analysis tool used by planners and analysts to generate or modify selected TPFDDs.

#### 3.3.5.1 Initialization

DART functionality is invoked by double clicking the left mouse button on the **DART** icon within the main launch window.

#### 3.3.5.2 User Inputs

Operator defined inputs to DART include:  Modifications to TPFDD requirements, Type Unit Characteristics (TUCHA) file updates, Transportation Flow Analysis, Unit Information (UI) file updates, Unit Line Number (ULN) sourcing, Force Module creation, and TPFDD creation.

#### 3.3.5.3 System Inputs

TPFDDs are sent from the IMS.  In addition, the Reference File Manager (RFM) transfers standard reference files to DART.  These reference files include:  Geographical Location File (GEOFILE), Assets for Planning (ASSETS) file, Characteristics of Transportation Resources (CHSTR) file, TUCHA, and the JOPES F6 extract of the UI file.

#### 3.3.5.4 Termination

DART termination procedures involve selecting the **Exit Dart** option under the File menu on the main button bar within the main DART window.

#### 3.3.5.5 Restart

Not applicable.

#### 3.3.5.6 Outputs

Outputs include modified UI files, OPLAN requirements, and changes made to any of the user defined or system inputs.

### 3.3.6 Evacuation System

The Evacuation System  (EVAC) is a Joint Staff and State Department automated computer database that provides the capability to answer queries on evacuation plans and personnel located at each reporting foreign service post (e.g., embassy, consulate general, consulate) worldwide.  EVAC gathers data from State Department formatted messages sent to the National Military Command Center (NMCC) and allows

interested users to query the database and answer questions concerning requirements for planning in case any evacuation is necessary.

The EVAC application operates in two modes: retrieval and update. Retrieval functionality provides the capability to view the personnel evacuation data on the screen or print the data. The Update functionality provides the operator with the capability to change data in individual district records, add a country or a consular district, or delete individual district records.

An EVAC file record consists of the following fields:

- Country Code,
- District Code,
- Country Name,
- District Name,
- Classification Code,
- Date of Report,
- Time of Report,
- Year of Report,
- Number of DoD Employees,
- Number of DoD Dependents,
- Number of Government Employees,
- Number of Government Dependents,
- Number of Private Industry Employees,
- Number of Host Government Employees,
- Number of Students,
- Number of Missionaries and Clergy,
- Number of Dependents of Residents,
- Number of Other American Residents,
- Number of First Quarter Tourists,
- Number of Second Quarter Tourists,
- Number of Third Quarter Tourists,
- Number of Fourth Quarter Tourists,
- Number of Alien Non-Dependent Family Members,
- Number of Long-Term Legal Residents of U.S. Temporarily Abroad,
- Number of Miscellaneous Other Residents,
- Number of Host Nationals Whom U.S. May be Asked to Assist,
- Estimated Percent of Host Nationals Desiring Evacuation, and
- Amplifying Remarks on Any of the Above Fields.

### 3.3.6.1 Initialization

The EVAC application and main window is invoked by double clicking the left mouse button on the **EVAC** icon within the GCCS desktop main launch window.

### 3.3.6.2  User Inputs

User inputs to the EVAC application are based on operator actions for data inclusion or commands to retrieve or update record information.  The source of input to the EVAC database is State Department Report F-77, "Emergency and Evacuation:  Estimated Number of Potential Evacuees and Private Americans Residing Abroad."

### 3.3.6.3  System Inputs

None.

### 3.3.6.4  Termination

The EVAC application is terminated with a two-step process.  Within the Retrieval, Update, or Print modes the user must enter a non-blank character in the appropriate Stop Block [ ] and press <return>.  Next the user must type **bye** at the system-level prompt.

### 3.3.6.5  Restart

Not applicable.

### 3.3.6.6  Outputs

Outputs from the EVAC application consist of screen displays and printed reports that list personnel to be evacuated from foreign service posts by U.S. Military personnel.

### 3.3.7    Force Augmentation Planning and Execution System

Force Augmentation Planning and Execution System  (FAPES) is a military mobilization decision-making tool used to capture and integrate manpower information for both deliberate and crisis situations.  FAPES compiles data from numerous systems.  FAPES quantifies manpower resources, determines manpower shortfalls and constraints, forecasts time-phased requirements, and monitors mobilization, which helps leaders analyze military support for civil defense, military operation plans, and operational readiness.

### 3.3.7.1  Initialization

The FAPES application and main window can be invoked by two methods.  The first method is by double clicking the left mouse button on the **FAPES** icon within the GCCS desktop main launch window.  The second method is via the JNAV application.  For those systems with a GUI-based JNAV window, FAPES is invoked by pressing the **START** icon next to "Force Augmentation" within the JNAV Netscape-based GUI window.  For those systems with a text-based JNAV window, FAPES is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "Force Augmentation" text and pressing <enter>.

### 3.3.7.2  User Inputs

User inputs to FAPES processing include the following:  operator modifications to the reason codes table, operator entered apportionment data, operator modified OPLAN mobilization limits, operator defining and refining of countries within the Area of Operational Responsibility (AOR), adding a new Service (record) to the Reserves Support categories, modifications to existing OPLAN Major Regional Contingency (MRC)/Lesser Regional Contingency (LRC) records, current/projected conscription rates, and operator additions, modifications, and deletions to the existing Point of Contact file.

### 3.3.7.3  System Inputs

TPFDDs from JOPES, GEOFILE, and five different Plan Information files comprise the system inputs to FAPES.  These Plan Information files include:  Concept of Operations, Plan Assumptions, Plan Constraints, Major Forces, and Plan Narrative.  Status of Resources and Training System (SORTS) data is also an input to FAPES via the Secret Internet Protocol Router Network (SIPRNET).  In addition, the following secondary sources supply data to FAPES:

- The Defense Manpower Data Center (DMDC) provides data on manpower accessions from the Reserve Component Common Personnel Data System (RCCPDS) on a monthly basis, along with active duty file data, which is updated monthly.  Regular retiree data is updated quarterly.

- The Military Entry Processing Command (MEPCOM) provides Military Entrance Processing and Reporting System (MEPRS) data monthly.

- The Selective Service System (SSS) provides data from the Registrant Information Management System (RIMS) semi-annually.

- The Mobilization Stationing and Planning System (MSPS) provides information on resources and training of Army units.

### 3.3.7.4  Termination

Termination of FAPES processing can be executed from the command line within any FAPES window.  The actions to terminate FAPES are as follows:  the user moves the pointer to the label Command==> and clicks on the left mouse button to activate the command line.  Next, the user types **LOGOFF** on the command line.

### 3.3.7.5  Restart

Not applicable.

### 3.3.7.6  Outputs

FAPES outputs are hard copy reports based on quantification of manpower resources to perform a specific OPLAN.  The current list of available reports include:  Home Location Unit Status, Status of Callup, Supply Units, Maintenance Units, Unit Status Indicators, Non-TPFDD Units, Unit Personnel Status, Force LOC-ACT-CMD Relationship, In-Place Forces, OPLAN Force Requirements, Force Strength, Force Status (Deployability), Time-Phased Availability, Time-Phased Generation, and Unit Type Shortfall.  In addition, there are seven graphical reports:  Force Augmentation Options, Time-Phased Availability, Unit Type Shortfall, Conscription Base, Mobilization Status/Progress, Military Support to Civil Defense, and Force LOC-ACT-CMD Relationship.

### 3.3.8     Freeware Implementation of UNIX Talk

The freeware implementation of UNIX Talk, known as CHATTER, provides the capability for one GCCS operator at a given workstation to communicate with a GCCS operator at another workstation in real time.  Only two operators can be communicating at one time, and both of these operators must be using the GCCS desktop.

### 3.3.8.1  Initialization

CHATTER is invoked by double clicking the left mouse button on the **CHATTER** icon within the main launch window.  The GCCS Talk pop-up window is displayed as a result of this action.

### 3.3.8.2  User Inputs

Operator-to-operator typed text messages entered via keyboard in real time.  Both operators have the UNIX Talk screen with the upper half used for keyboard entry, and the lower half used for text message receipt.

### 3.3.8.3  System Inputs

None.

### 3.3.8.4  Termination

Move pointer to the Start menu within the GCCS Talk pop-up window and select the **Exit** option.

**3.3.8.5  Restart**

Not applicable.

**3.3.8.6  Outputs**

Text messages are received the lower half of the UNIX Talk Screen.

**3.3.9     Fuel Resource and Allocation System**

Fuel Resource and Allocation System (FRAS) serves as a tool for users to extract OPLAN and Logistics Fuel Factor information from the GCCS Core Databases.  The fuel resource related information is extracted from the various JOPES database files, processed and generated into a series of flat files, then downloaded via the FRAS interface to a PC, which executes the actual analysis software.  FRAS is also used by the Defense Fuel Supply Center (DFSC) and the JEXAC FRAS team to upload files to the different CINCs.
The FRAS main menu consists of the following items:

- Forcelist,
- Planning Factors,
- Download,
- Upload, and
- Exit.

When the Forcelist menu item is selected, the user is prompted to enter a valid OPLAN ID and a valid user ID.  This selection is used to extract the appropriate force information for input to the FRAS standalone PC-based system.  The Planning Factors menu item is used to retrieve unit and service fuel consumption factors for input to the FRAS standalone PC-based system.  Both the Download and Upload menu items provide the capability for the user to download or upload the following files:

- Regions,
- Assets,
- IMP,
- Tanker,
- Locator,
- Capability, and
- Terminal.

The user has the option to download or upload one, several, or all of the files listed above.  To download or upload all files the user must select the respective download or upload submenu item **All**.  The submenu items appear as check boxes.  When the desired file(s) have been selected, the user must select **Exit** to execute the download or upload process.  FRAS will notify the user of the current download or upload status.

**3.9.1.1  Initialization**

The FRAS application is invoked by double clicking the left mouse button on the **FRAS** icon within the GCCS Desktop main launch window.

### 3.3.9.2 User Inputs

User inputs to the FRAS application are based on operator actions to perform the following:

- Extract force information from the applicable JOPES database files.
- Extract fuel resource information from the applicable JOPES database files.
- Download desired files to a Disk Operating System (DOS) floppy disk.
- Upload desired files.

### 3.3.9.3 System Inputs

None.

### 3.3.9.4 Termination

The FRAS application within GCCS is terminated by selecting **Exit** on the FRAS main menu.

### 3.3.9.5 Restart

Not applicable.

### 3.3.9.6 Outputs

Outputs from FRAS include the following downloaded or uploaded files:

- Regions,
- Assets,
- IMP,
- TANKER,
- Locator,
- Capability, and
- Terminal.

### 3.3.10 GCCS Air Tasking Order Review Capability

GCCS Air Tasking Order Review Capability (GARC) provides GCCS with the ability to receive and view USMTFAir Tasking Order (ATO) Confirmation (ATOCONF) messages disseminated by the Contingency Theater Automated Planning System (CTAPS) Version 5.1.  The ATOCONF messages are received through electronic mail and then automatically stored in the GCCS file system.  Through a MOTIF-based Human-

Machine Interface (HMI), users can select from the received ATOs and view the contents with a text editor. GARC users can also specify a filtering criteria before viewing the information.

### 3.3.10.1    Initialization

The GARC application is invoked by double clicking the left mouse button on the **GARC** icon within the GCCS desktop main launch window.

### 3.3.10.2    User Inputs

User inputs include operator actions to view the contents of the received ATOs with the text editor provided.

### 3.3.10.3    System Inputs

The ATOCONF Messages are received via e-mail and then stored in the GCCS file system for operator retrieval.

### 3.3.10.4    Termination

The GARC application is terminated by selecting the **Exit** option under the File menu in the main GARC window.

### 3.3.10.5    Restart

Not applicable.

### 3.3.10.6    Outputs

None.

### 3.3.11   GCCS Reconnaissance Information System

GCCS Reconnaissance Information System (GRIS) provides automated support in planning, scheduling, reporting, and monitoring reconnaissance activities under the Sensitive Reconnaissance Operations (SRO) program.  GRIS maintains a near real-time status of all SRO missions and provides immediate on-line retrieval of mission, track, and message data.  To accomplish this, GRIS provides automatic real-time capture and processing of Reconnaissance Information Processing System (RIPS) format messages, and maintains a mission and track database containing schedule and resultant information.  GRIS is used to generate and release the outgoing SRO messages to the AUTODIN and provides on-line query and report capabilities detailing message, mission data, and scheduling information.  In addition, GRIS is used to maintain current Track Dictionary data and generate the master copy of each new dictionary or set of change pages.

### 3.3.11.1    Initialization

GRIS is invoked by double clicking on the **GRIS** icon within the GCCS desktop main launch window.

### 3.3.11.2    User Inputs

User inputs to the GRIS application are based on operator actions to perform the following:

- Retrieve reconnaissance mission, track, and message data.
- Generate and release outgoing SRO messages to the AUTODIN.
- Generate the master copy of each new Track Dictionary or set of change pages.
- Create queries and reports that detail message, mission data, and scheduling information.

### 3.3.11.3    System Inputs

GRIS provides automatic real-time capture and processing of RIPS format messages.

### 3.3.11.4    Termination

GRIS is terminated by selecting the **Exit** option on the GRIS main menu.

### 3.3.11.5    Restart

Not applicable.

### 3.3.11.6    Outputs

GRIS is used to generate and release the outgoing SRO messages to AUTODIN.  In addition, GRIS provides on-line query and report capabilities detailing message, mission data, and scheduling information.  GRIS is also used to generate the master copy of each new Track Dictionary or set of change pages.

### 3.3.12   Global Status of Resources and Training System

Global Status of Resources and Training System (GSORTS) provides command-level authority with the latest and most accurate information about the status and location of all reporting units within the United States Armed Forces.  Unit status reports consist of data based on location, readiness of personnel, supplies and major equipment, personnel strength, and training.   GSORTS also provides for the graphical display of data that was originally retrieved via the Generalized Interactive Query System (GIQS).

### 3.3.12.1   Initialization

The GSORTS application and main window can be invoked by two methods.  The first method is by double clicking the left mouse button on the **GSORTS** icon within the GCCS desktop main launch window.  The second method is via the JNAV application.  For those systems with a GUI-based JNAV window, GSORTS is invoked by pressing the **START** icon next to "Resources & Training" within the JNAV Netscape-based GUI window.  For those systems with a text-based JNAV window, GSORTS is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "Resources & Training" text and pressing <enter>.

The GIQS is an important background process for GSORTS that retrieves text data based on queries to the database.  GIQS functionality is invoked via double clicking the left mouse button on the **GIQS** icon within the main launch window.

### 3.3.12.2   User Inputs

Output consists of canned queries and operator-created queries of the SORTS-related data within the GSORTS database.

### 3.3.12.3   System Inputs

SORTS-related data from the United States Air Force, Army, and Navy, via SQL*NET.  The Navy is responsible for reporting SORTS data for the Marine Corps, Coast Guard, and Military Sealift Command (MSC).

### 3.3.12.4   Termination

GSORTS is terminated by selecting the **Exit** option under the File menu within the main GSORTS window.  GIQS is terminated by selecting the **Quit** option under the System menu within the main GIQS window.

### 3.3.12.5   Restart

Not applicable.

### 3.3.12.6   Outputs

Outputs consist of Unit Reports based on operator queries regarding basic identity data, geolocation data, readiness data, major equipment data, transportable communications equipment data, operational plans, and personnel strength.

### 3.3.13   Global Transportation Network

The Global Transportation Network (GTN) application provides a communications interface based on the Hyper channel Network (NETEX) applications program.  GTN is both a transportation system and a $C^2$ system that provides USTRANSCOM and its component commands with integrated, automated support to plan, provide, and control the common user airlift, surface lift, and terminal services that deploy and sustain DoD forces globally during both peace and war.  The GTN system receives data from existing Government and commercial transportation computer systems and integrates this data into a single database.  This integrated data provides management information not previously available from the individual source systems.  Within the GCCS configuration, GTN will be executed on a Virtual Terminal-100 (VT-100) Emulator.

There are currently seven existing sources of transportation data including:

- Aerial Port Documentation and Management System III (ADAM III),
- Defense Automatic Addressing System (DAAS),
- Global Decision Support System (GDSS),
- Mechanized Export Traffic System II (METS II),
- Passenger Reservation and Manifesting System (PRAMS),
- Terminal Management System (TERMS), and
- Worldwide Port System (WPS).

The primary day-to-day customers of the Defense Transportation System (DTS) are the services and agencies that routinely supply and transport personnel and material around the world.  The supply community relies on the DAAS to route transactions among the various wholesale and retail activities.  The DAAS will provide the GTN system with requisition, shipment status, and receipt information.  Personnel and material enter the DTS at an origin.  Several systems provide information to track lift requirements and status from the origin to the Port of Embarkation (POE).  For air transport, PRAMS provides the GTN system with reservation and manifesting information for passengers; and the ADAM III provides the GTN system with manifest and itinerary information for cargo.  Similarly, the TERMS, METS II, and WPS provides the GTN system with information regarding the booking, manifesting, and transporting material by surface carriers.  Once personnel or cargo have been manifested on an air carrier, GDSS provides the GTN system with the progress of the military air carrier (and selected commercial flights) on its itinerary.

### 3.3.13.1     Initialization

The GTN system and associated main menu is invoked by logging on the VT-100 emulator with a valid user name and password.

**3.3.13.2    User Inputs**

User inputs to the GTN application are based on operator actions including:

●   Air passenger queries based on UIC, ULN, Social Security Number (SSN) or Name.

●   Air cargo queries based on National Stock Number (NSN), Transportation Control Number (TCN), ULN, UIC, Department of Defense Identification Code (DODIC), Aircraft Mission Number, or Item Name.

●   Air schedule queries based on Passenger, Cargo, Aircraft Mission Number, UIC, or ULN.

●   Surface cargo queries based on UIC, ULN, Ship Name, NSN, TCN, DODIC, Item Name, or Container ID.

●   Surface schedule queries based on Ship Name.

**3.3.13.3    System Inputs**

None.

**3.3.13.4    Termination**

The GTN system is terminated with a two-step process.  Within the GTN main menu, the user must press the <F3> function key to return to the command line.  Then, on the command line, the user must enter a **7** (Quit option) to exit the system.

**3.3.13.5    Restart**

Not applicable.

**3.3.13.6    Outputs**

Outputs from the GTN system consist of screen displays, hardcopy listings, or summary reports resulting from the following queries:

●   Air passenger,
●   Air cargo,
●   Air schedule,
●   Surface cargo, and
●   Surface schedule.

### 3.3.14   Individual Manpower Requirements and Availability System

Individual Manpower Requirements and Availability System (IMRAS) supports manpower and personnel decision-making and individual manpower planning and execution requirements to meet the operational requirements of the joint community within each of the JOPES mission areas. During deliberate planning and crisis situations, it will provide support for mobilization, deployment, employment, and sustainment activities. In addition, IMRAS will support development of the personnel estimate of the given situation and personnel appendices to Joint Strategic Planning System (JSPS) documents.

The IMRAS application and main window can be invoked by two methods. The first method is by double clicking the left mouse button on the **IMRAS** icon within the GCCS desktop main launch window. The second method is via the JNAV application. For those systems with a GUI-based JNAV window, IMRAS is invoked by pressing the **START** icon next to "Personnel Planning" within the JNAV Netscape-based GUI window. For those systems with a text-based JNAV window, IMRAS is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "Personnel Planning" text and pressing <enter>.

The IMRAS application will be implemented in a future version of GCCS.

### 3.3.15   Information Management Subsystem

Information Management Subsystem (IMS) is a Technology Insertion Project (TIP) software package that has been incorporated into GCCS. IMS is a tool for centralized TPFDD data management among the GCCS user applications and the server.

#### 3.3.15.1     Initialization

The IMS application is invoked by double clicking the left mouse button on the **IMS** icon within the main launch window. The TIP Information Management Service - Version 2.0.7 window is displayed as a result of this action.

#### 3.3.15.2     User Inputs

The IMS application is initiated by operator action to download TPFDDs to the various TIP applications such as DART and Joint Flow Analysis System for Transportation (JFAST). Conversion routines are embedded within the IMS software to automatically convert TPFDD files into the format required by the target application (i.e., DART and JFAST). In addition, IMS software allows the user to transfer TPFDDs to the GCCS integrated database.

#### 3.3.15.3     System Inputs

None.

#### 3.3.15.4     Termination

Click on the red **Quit** command button located on the bottom of the TIP Information Management Service - Version 2.0.7 window.

### 3.3.15.5    Restart

Not applicable.

### 3.3.15.6    Outputs

Outputs consist of File transfers of TPFDDs between DART and JFAST via IMS and, when applicable, TPFDD data sent to the GCCS integrated database.

### 3.3.16   Information Resource Manager

The Information Resource Manager (IRM) application is a generalized Joint Deployment database update subsystem to support the JCS, Joint Deployment Community (JDC) planners, USTRANSCOM Crisis Action Team (CAT), and Transportation Component Command (TCC) operators and decision makers with the capability to load, modify, manipulate, and delete data for OPLANs, multiple OPLANs, and Rapid Deployment Planning (RDP).  The IRM application is comprised of 17 subsystem functions:

- Time-Sharing System (TSS) Spawn Init Normal/Limited Access/Close Hold OPLAN,
- Change OPLAN Type/Access/Distribution,
- Offload/Reload OPLAN,
- Save and Recover Local OPLANs,
- Local OPLAN Data Base Recovery Clean Up,
- Reset C-Day/TCC/Indicators,
- Delete OPLAN,
- Set C-DAY/L-HOUR,
- Reset Plan Status,
- Load OPLAN,
- Journalization Tape Maintenance,
- Audit Reports,
- JDS Permissions,
- Selective Site Data Recovery,
- OPLAN Network Status,
- Set Record Counts, and
- Repair OPLAN Routing.

### 3.3.16.1    Initialization

The IRM application and main window can be invoked by two methods.  The first method is by double clicking the left mouse button on the **System Services** icon within the GCCS desktop main launch window.  The second method is via the JNAV application.  For those systems with a GUI-based JNAV window, IRM is invoked by pressing the START con next to "Information Resource Management" within the JNAV Netscape-based GUI window.  For those systems with a text-based JNAV window, IRM is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "Information Management" text and pressing <enter>.

### 3.3.16.2    User Inputs

User inputs to the IRM application are based on operator actions to perform the following tasks:

- Initialize normal network OPLANs.

- Initialize normal local OPLANs.

- Initialize limited access network OPLANs.

- Initialize limited access local OPLANs.

- Initialize close hold local OPLANs.

- Save and recover local OPLANs.

- Modify OPLANs including setting and resetting of C-DAY and L-HOUR and plan status.

- Delete OPLANs.

- Produce Audit Reports including transaction reports, transaction dumps, and data transaction reports based on Unit Line Number (ULN), Cargo Increment Number/ Personnel Increment Number (CIN/PIN), carrier manifest, diversion change, and Unit    Movement Data (UMD) transactions.

- Generate User Identification (USERID) Reports.

- Generate OPLAN Network Status Reports.

- Assign/Change/Review permissions and site identification.

- Recover selective site data.

- Assign/Change/Review permissions and site identification

- Set record counts.

- Repair OPLAN routing.

### 3.3.16.3    System Inputs

None.

### 3.3.16.4    Termination

The IRM application is terminated by clicking the left mouse button on the **Exit** button in the System Services main window.

### 3.3.16.5    Restart

Not applicable.

### 3.3.16.6    Outputs

The IRM application produces the following outputs:

- Various types of initialized and modified OPLANS;

- Audit reports including transaction reports, transaction dumps, and data transaction reports based on ULN and CIN/PIN, carrier manifest, diversion change, and UMD transactions;

- User Identification (USERID) Reports; and

- OPLAN Network Status Reports.

### 3.3.17   Internet Relay Chatter Common Application

The Internet Relay Chatter Common Application (IRC) Common Application is a COTS product implemented as a network of IRC servers. Users interact with IRC via IRC clients. A user invokes an IRC client and directs the client to connect to a server. Once connected, the client indicates to the server which channels the client has joined. The server transmits all messages on those channels to the client. When the client sends a message to the server, the server forwards the message to all other clients on the message's channel and to all other servers that have clients on that channel. IRC provides the following capabilities for clients:

- List Channels (Topics),

- Join Existing Channel,
- Create Conference (Topic) in either the Moderated Mode or Invite Only Mode,
- Participate in Sidebar Conversation (for privacy), and
- Close Channel.

The IRC server is a UNIX daemon that runs continuously on a server platform.  Each server location will have at least one IRC server running at all times.  The IRC server uses sockets for interprocess communication.  The default port is 6667.  IRC is very interactive; however, no messages can be saved.  When a user types a message on the screen, it is quickly transmitted to all other users currently connected to that conference.  However, when a message is sent while a user is not connected, that user will not be able to see the message.

### 3.3.18   Joint Deployable Intelligence Support System

Joint Deployable Intelligence Support System (JDISS) provides connectivity and interoperability among the intelligence systems required to support forces in garrison and deployed in peacetime, crisis, and wartime.  JDISS also provides the Joint Intelligence Center (JIC), Joint Task Forces (JTF), and operational commanders with on-site automation support and the connectivity necessary to execute the intelligence mission.  The JDISS application also represents the technical baseline for the DoD Intelligence Information System (DoDIIS) client/server environment.

### 3.3.18.1     Initialization

The JDISS application is invoked by double clicking the left mouse button on the **JDISS** icon within the main launch window.  The JDISS Main Desktop pop-up window is displayed as a result of this action.

### 3.3.18.2     User Inputs

Operators can make requests for specific intelligence information and digitized imagery.

### 3.3.18.3     System Inputs

JDISS provides access to theater, Service, and national intelligence databases, automated message processing systems (including AMHS), indications and warning systems, and collection management systems.

### 3.3.18.4     Termination

JDISS is terminated by moving the pointer to the File menu on the JDISS Main Desktop pop-up window and selecting the **Exit** option.

### 3.3.18.5    Restart

Not applicable.

### 3.3.18.6    Outputs

Operators can use JDISS to exchange intelligence information and digitized imagery with other JDISS capable sites.

### 3.3.19   Joint Engineer Planning and Execution System

Joint Engineer Planning and Execution System (JEPES) is an automated tool for use by the Joint Staff, the CINCs of the unified and specified commands, and the Service Civil Engineering planners.  JEPES assists the planner in developing the Civil Engineering Support Plan (CESP) annex to an OPLAN.  JEPES identifies the facilities required to support deploying forces, apply existing assets to fulfill these requirements, and then assign engineering resources to construct unsatisfied requirements.  JEPES also generates a series of reports and graphics to illustrate requirements and provides data for Logistics Sustainability Analysis (LSA) and the Logistics Sustainment Analysis and Feasibility Estimator (LOGSAFE) system.

The JEPES Utilities function provides the capability to export and import the plan-dependent tables, plan-independent tables, and the entire JEPES database.

The Database Maintenance function consists of three subfunctions.  The Edit Tables subfunction provides the capability to query, delete, edit, and add data within JEPES database tables.
The Database Analysis subfunction checks for data consistency across tables.  Reports are generated if discrepancies are detected.  The Update JEPES Tables subfunction updates certain JEPES tables for database consistency.

The Requirements Generation function is used to generate a set of engineering requirements to be satisfied for a specific OPLAN.  Requirements can be produced for unit allocated, planner facility, population, and base requirements.  Reports can be produced for all projects or for those limited to a specific base.  Graphs and spreadsheets can be generated to display population and various time-phased requirements.

The Requirements Analysis function is divided into two subfunctions:  Apply Assets and Apply Engineering Resources.  Apply Assets satisfies the facility requirements generated by the Requirements Generation function using existing facilities.  This subfunction takes into consideration the availability of U.S., Host Nation, and/or leased assets.  Various printed reports can be generated to display all asset-satisfied and asset-unsatisfied requirements.  Apply Engineering Resources is used to assign engineering resources to requirements that were not satisfied by the Apply Assets subfunction.  These resources can include Host Nation and contractor engineering resources as well as U.S. resources.  The user can produce printed reports listing construction requirements and any remaining unsatisfied requirements.

The Standard Reports function allows the operator to generate printed reports, spreadsheets, and graphs regarding both requirements generation and requirements analysis.  The User Reports subfunction provides

the capability to generate a previously defined user report.  The AdHoc Queries subfunction provides the capability to construct an ad hoc query or recall a pre-defined ad hoc query.

The Support function provides the engineering planners with the ability to analyze the JEPES outputs in terms of OPLAN sustainability, and to evaluate alternative courses of action.   This information can then be sent to the LSA system.  The Support function also allows non-unit cargo information to be sent to the LOGSAFE application.

### 3.3.19.1    Initialization

The JEPES application and main window can be invoked by two methods.  The first method is by double clicking the left mouse button on the **JEPES** icon within the GCCS desktop main launch window.  The second method is via the JNAV application.  For those systems with a GUI-based JNAV window, JEPES is invoked by pressing the **START** icon next to "Civil Engineering" within the JNAV Netscape-based GUI window.  For those systems with a text-based JNAV window, JEPES is invoked by moving the cursor via <tab> to the START  indicator immediately to the right of "Civil Engineering" text and pressing <enter>.

### 3.3.19.2    User Inputs

User inputs to the JEPES application are divided into three categories:  Civil Engineering Files (CEFs), TPFDD data, and Reference Files.

- CEFs:

  - OPLAN independent files:

    · MASTER File
    · Planning Factor (PLNGFACT) File
    · Component (CMPNT) File
    · Engineering Capability (ECAPB) File.

  - OPLAN dependent files:

    · ASSET File
    · ASSETHN File
    · CARDS Files (Base Complex, Base Location, Backup Supply, Base Facility Construction Policy, Plan Facility Construction Policy, Planner Input Requirements, Engineering Support).

- TPFDD data:

  - TROOP file.

- Reference Files:

    - FACILITY CATEGORY File
    - GEOLOC File.

### 3.3.19.3    System Inputs

None.

### 3.3.19.4    Termination

Within JEPES, the <Esc> key is used to back up to the previous menu.  Once at the Main menu, the user can exit JEPES by pressing the <Esc> key.

### 3.3.19.5    Restart

Not applicable.

### 3.3.19.6    Outputs

The JEPES application produces the following outputs:

- Printed reports that illustrate discrepancies between database tables.

- Printed reports that highlight the facility requirements for unit-allocated, planner facility, population, and base forces.

- Graphics that display base population data, time-phased population growth over an entire OPLAN, and time-phased requirements data for up to four specific facility category codes at a specific base complex.

- Printed reports that list all asset-satisfied and asset-unsatisfied requirements.

- Printed reports for all construction requirements, construction requirements for a specified region and/or time constraint, and construction requirements within an analysis period.

- Printed reports of the Class IV material requirements needed to support the civil engineering activity in a given area of operation.  This information is also used to produce a LOGSAFE text file that can be passed to the LOGSAFE application.

- LSA data graphs that can be generated for six sub-elements: Airfields, Seaports, Petroleum, Oil and Lubricants (POL) Storage/Distribution, Non-POL Storage/Distribution, Troop Support, and Utilities. The operator can display graphs producing the lowest percentage for each infrastructure sub-element by time period, lowest level of sustainability for each infrastructure sub-element and percent available for each sub-element. In addition, LSA data can be stored in a text file to be passed to the LSA system.

### 3.3.20  Joint Flow Analysis System for Transportation

Joint Flow Analysis System for Transportation (JFAST) will reside on an Intel 486 Workstation. It was developed in response to the need for war fighting CINCs and the Joint Staff to rapidly analyze a course of action for the deployment of United States military forces and sustainment. It is designed to replace the current JOPES Transportation Feasibility Estimator (TFE).

### 3.3.20.1     Initialization

Once the JFAST PC CPU and monitor are powered up, the TIGERSAFE screen will be displayed along with a series of system startup messages. JFAST PC login procedures are executed via two logins. The first login is the TIGERSAFE login, where the user enters the appropriate TIGERSAFE password. The second login involves entering a valid JFAST user name and password, which displays the TIGERSAFE User's Menu.

### 3.3.20.2     User Inputs

Operator actions that generate changes to Force Modules for answering "What If ..." questions regarding feasibility of transportation. Additional operator actions involve creating ad hoc queries where various data items are modified for analysis by JFAST. These modified data items include POEs, Ports of Debarkation (POD), Earliest Arrival Date (EAD), Latest Arrival Date (LAD), etc. The JFAST application normally operates on a user-defined TPFDD; however, a TPFDD is not mandatory. The JFAST Notational Requirements Generator (NRG) module provides the capability to develop a notational force list for estimating various transportation requirements.

### 3.3.20.3     System Inputs

Transportation requirements derived from TPFDD regarding the transport of personnel and cargo. Reference files for JFAST include: GEOFILE, TUCHA, ASSET, and CHSTR. Non-JOPES inputs include: Sea scheduler reference data for use by the Sail Algorithm, NRG reference data, and other transportation reference data related to AMC, MSC, and MTMC.

### 3.3.20.4     Termination

Move mouse pointer to the **Exit** button on the main JFAST screen and click left mouse button to terminate JFAST processing.

**3.3.20.5 Restart**

Not applicable.

**3.3.20.6 Outputs**

Outputs consist of hard copy reports of transportation feasibility based on analysis performed in JFAST.

**3.3.21 Joint Maritime Command Information System**

Joint Maritime Command Information Systems (JMCIS) will reside on the Sun SPARCstation 20. It provides the CINC and component commanders with a single integrated $C^2$ system to receive, process, display, maintain, and/or assess the unit characteristics, employment scheduling, material condition, combat readiness, warfighting capabilities, positional information, and disposition of own and allied forces, and to optimize the allocation of those resources. JMCIS provides a flexible and powerful COE and development methodology that delivers state-of-the-art capability. JMCIS offers the "superset" of functionality of all Navy $C^2$ systems including OSS and NTCS-A.

**3.3.21.1 Initialization**

JMCIS functionality is invoked by double clicking the left mouse button on the **CHART** icon within the main launch window.

**3.3.21.2 User Inputs**

Basic JMCIS user inputs include operator-created tracks including real and simulated training, overlays, Pimtracks, and Opnote messages.

**3.3.21.3 System Inputs**

JMCIS receives and decodes the following types of formatted messages: OTH GOLD contact reports, OTH GOLD overlays, OTH GOLD opnotes, and OTH GOLD FOTC SITREPS.

**3.3.21.4 Termination**

The System Menu is the first menu on the JMCIS System (Chart) Window. The only option under the System menu is EXIT. Use this option to terminate all JMCIS functionality.

**3.3.21.5 Restart**

JMCIS can be restarted by selecting the **Restart Chart** option under the Chart menu on the UB menu bar.

**3.3.21.6 Outputs**

JMCIS encodes and transmits the following types of formatted messages:  OTH GOLD contact reports, OTH GOLD overlays, OTH GOLD opnotes, and OTH GOLD FOTC SITREPS.

### 3.3.22  JOPES Navigation

The Jopes Navigation (JNAV) window is used to provide access to the various JOPES applications within GCCS.  These JOPES based applications fall into the following six major categories:

- Requirements
  - Requirements Development & Analysis (RDA)
  - Force Module Processing (FMEDIT)
  - Resources and Training (GSORTS).

- Transportation/Scheduling
  - Scheduling and Movement (S&M)
  - Transportation Analysis (JFAST)
  - TCC External System Interface (ESI).

- Sustainment Modeling
  - Civil Engineering (JEPES)
  - Sustainment Planning (LOGSAFE)
  - Force Augmentation (FAPES)
  - Medical Planning (MEPES)
  - Personnel Planning (IMRAS).

- Reports and Retrievals
  - AdHoc Queries (AHQ)
  - Reports.

- System Services
  - Information Resource Management (IRM)
  - Reference Files Administration (RFA)
  - JSIT Commands.

- Communications
  - Internet News (TLCF)
  - Internet Chatter (TLCF).

The JNAV window appears in two different formats based on the user interface. The first interface is a GUI where the operator selects a JOPES application by clicking on the particular **START** icon to the far left of the application name. In addition, the operator can obtain information about an application by selecting the Information sign located between the START icon and the application name. Gray icons denote those applications that are not available based on the operators user ID. The *JOPES User's Guide* can be invoked by clicking on **User Guide** located at the bottom left of the JNAV window. A list of acronyms and help topics is also available by clicking on the applicable underlined letter after "JOPES Encyclopedia" at the bottom of the window.

The second JNAV window has a text-based format. For this text-based interface, move the cursor to the desired location by pressing <tab>. After the cursor is over the desired application press <enter> to invoke the application or access the desired help information. The *JOPES User's Guide*, list of acronyms, and help topics are also accessed via the use of <tab> and <enter> within the text-based JNAV window.

Both the GUI-based and text-based versions of JNAV are invoked by double clicking on the **JOPES** icon within the main GCCS launch window.

### 3.3.23   JOPES Pre-Defined Reports

The JOPES Pre-Defined Reports (PDR) application enables the user to generate various JOPES-based reports with pre-defined formats that yield detailed requirements data, Force Module data, and results of OPLAN analysis. The initial JOPES PDR Netscape-based window lists the various reports under the following five functional areas:

- Requirements Detail Group,
- Movement Requirements Group,
- Force Module Group,
- OPLAN Analysis Group, and
- Reference File Paging Group.

To activate a report under any group, click on the respective icon. Click on the report title (appearing to the user as underlined text) to obtain help information for that specific report. In general, JOPES reports are based on either OPLAN or Reference File data. For those reports using OPLAN data, the next window that appears is the OPLAN selection window. When the user selects a desired OPLAN, the requirements selection window is displayed. This window allows the user to specify the selection criteria, thus indicating the collection of requirement records to be processed for the report. The PDR application also allows the user to preview the report output in the window prior to sending the data to the printer.

### 3.3.23.1   Initialization

The PDR application and main window can be invoked by two methods.  The first method is by double clicking the left mouse button on the **PDR** icon within the GCCS desktop main launch window.  The second method is via the JNAV application.  For those systems with a GUI based JNAV window, PDR is invoked by pressing the **START** icon next to "Reports" within the JNAV NETSCAPE based GUI window.  For those systems with a text-based JNAV window, PDR is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "Reports" text and pressing <enter>.

### 3.3.23.2    User Inputs

User inputs are based on operator actions to generate the various JOPES-related reports listed and described in the Outputs section.

### 3.3.23.3    System Inputs

None.

### 3.3.23.4    Termination

The JOPES PDR application is terminated by selecting the **Exit** option in the File menu on the JOPES PDR Netscape window.

### 3.3.23.5    Restart

Not applicable.

### 3.3.23.6    Outputs

The JOPES PDR application provides outputs based on five Report Groups:  Requirements Detail, Movement Requirements, Force Module, OPLAN Analysis, and Reference File Paging.

The Requirements Detail Group contains five reports:

- Force Requirements,
- Airlift,
- AMC,
- Sealift, and
- MSC.

The Force Requirements report provides force cargo categories and cargo detail data for selected records in the OPLAN.  All selected force records or groups of force records in the OPLAN file can be selected for printing.  The report indicates the sequence number and ULN along with basic routing data for each qualifying force record.  Cargo categories and details are listed with cargo quantity summary totals for each CCC and requirement number.

The Airlift report provides all airlift requirements, movement data, and routing data.  Details include ULN/CIN/PIN, cargo description, number of items, cargo dimensions, weight, and totals.  The user has the option to print the data from all requirement records (ULNs, CINs, and PINs) in the OPLAN or to specify selected groups of records.

The AMC report provides the AMC airlift requirements, movement data, and routing data.  Details and printing options are the same as for Airlift reports.

The Sealift report provides all sealift requirements, movement data, and routing data.  Details and printing options are the same as for Airlift reports.

The MSC report provides the MSC sealift requirements, movement data, and routing data.  Details and printing options are the same as for Airlift reports.

The Movement Requirements Group contains three reports:

- Force List/Movement Requirements Working Paper,
- Time-Phased Transportation Requirements List (Tonnage), and
- Time-Phased Transportation Requirements List (Square Feet).

The Force List/Movement Requirements Working Paper report extracts force list data from an OPLAN and prints a Force List/Movement Requirements Working Paper.  All force list records selected or groups of force list records in the OPLAN can be selected for printing.  This report illustrates the ULN/CIN/PIN, a description of the unit, and basic routing data for each qualifying record.

The Time-Phased Transportation Requirements List (Tonnage) report provides movement requirements (based on tonnage) for bulk, oversize, outsize, and non-air-transportable cargo.  All force records or selected groups of force records in the OPLAN can be printed.

The Time-Phased Transportation Requirements List (Square Feet) report provides movement requirements (by square foot) for vehicular, nonself-deployable aircraft and boats, and other cargo.  Printing options and capabilities are the same as for the Tonnage Report.

The Force Module Group contains three reports:

- Force Module Rollup,
- Force Module Report, and
- Plan Requirements Module Reference.

The Force Module Rollup report provides summary data on a Force Module based on requirement type.  The cargo summary data are separated by bulk, outsize, oversize, and non-air-transportable categories (in tons).  The personnel summary data is presented in terms of passengers.  The user has the option to print the data from all requirements records (ULNs/CINs/PINs) in the OPLAN, or to specify selected groups of records to be printed for a Force Module or a group of Force Modules.

3-48

The Force Module Report provides requirement records with their associated personnel, cargo manifest, and routing data for all or a group of Force Modules.  Printing options are identical to those described in Force Module Rollup.

The Plan Requirements Module Reference report provides each requirement type (ULNs, CINs, and PINs) with a list of their corresponding Force Module IDs.  Printing options are identical to those described in Force Module Rollup.

The OPLAN Analysis Group contains three reports:

- Logical Errors Report,
- Transportation Pre-Edit Report, and
- OPLAN Comparison.

The Logical Errors Report audits the OPLAN data and produces a report of the audit error results.  The audit consists of format and content edits for individual data fields as well as consistency checks on interrelated data fields.  The user has the option to choose the level of editing to be performed.
The printed report can cover all requirement records (ULNs, CINs, and PINs) in the OPLAN or selected groups of records.

The Transportation Pre-Edit Report captures the errors in OPLAN elements that may prevent transportation scheduling from focusing on key scheduling information.  Both editing and printing options are identical to those specified for the Logical Errors Report.

The OPLAN Comparison report loads the TPFDDs associated with two PIDS, performs a comparison, and identifies those fields that are different, along with the data.  Lists and record counts are presented for all records modified, added, and deleted in the new TPFDD in relation to the older TPFDD.
The records are characterized by Force Requirement Number (FRN) or Unit Line Number (ULN)/Cargo Increment Number (PIN).  Both force and non-unit records can be compared in a single execution of this report.

The Reference File Paging Group contains two reports:

- Geo Paging/Report, and
- TUCHA Paging/Reports.

The Geo Paging Report presents geographical location data that includes country data, installation type, and geographical coordinates.  All geographical location data or a selected group of geographical location data can be sent to the printer.

The TUCHA Paging Reports option generates a series of reports that provide general Unit Type Characteristics including high-level personnel and cargo movement data, third level cargo movement detail, and fourth level cargo detail information.  All UTCs or a selected group of UTCs can be printed.

**3.3.24   Logistics Sustainment Analysis and Feasibility Estimator**

Logistics Sustainment Analysis and Feasibility Esitmator (LOGSAFE) computes transportation requirements for Non-unit-Related Cargo (NURC) necessary to support a proposed OPLAN.  NURC represents all equipment and supplies, other than that directly associated with a specific unit, that requires transportation to an area of operation.  NURC also includes re-supply and supply build-up for the deploying forces, support for allies, and support for non-military programs.  LOGSAFE is a menu-driven system that allows the user to obtain a list of deploying forces and supply consumption factors from the JOPES database, then uses this data to compute time-phased requirements for supplies.  LOGSAFE factors in requirements for supply build-up as well as off-sets to overall requirements that are provided by Prepositioned War Reserve Stocks.  The user may also tailor the supply consumption factors to meet precise scenario requirements as they become known.

LOGSAFE accepts requirements for Construction (Class IVA) and Medical (Class VIII) supplies from JEPES and the Medical Planning and Execution System (MEPES), respectively.  The computations resulting from the two specialized models, JEPES and MEPES, are more precise than those for Class IVA and VIII outputs from LOGSAFE.  Therefore, in situations where data from  JEPES and MEPES is available, the generalized output from LOGSAFE is not used.

**3.3.24.1      Initialization**

The LOGSAFE application and main window can be invoked by two methods.  The first method is by double clicking the left mouse button on the **LOGSAFE** icon within the GCCS desktop main launch window.  The second method is via the JNAV application.  For those systems with a GUI-based JNAV window, LOGSAFE is invoked by pressing the **START** icon next to "Sustainment Planning" within the JNAV Netscape-based GUI window.  For those systems with a text-based JNAV window, LOGSAFE is invoked by moving the cursor via <tab> to the START  indicator immediately to the right of "Sustainment Planning" text and pressing <enter>.

**3.3.24.2      User Inputs**

The operator enters modifications to logistics modeling parameters.

**3.3.24.3      System Inputs**

TPFDDs and six different LOGSAFE reference files comprise the system inputs to LOGSAFE.  These LOGSAFE reference files include:  COUNTRY, GEOLOC, Logistics Factors File (LFF), TUCHA, Ports of Support File (POSF), and Unit Type Code (UTC) Consumption Factors File (UCFF).

**3.3.24.4      Termination**

The LOGSAFE application is terminated by clicking the left mouse button on the **Exit** button within the LOGSAFE main window.  Next, the user must click on **OK** in the pop-up confirmation window.

### 3.3.24.5    Restart

Not applicable.

### 3.3.24.6    Outputs

This application generates logistics resupply requirements for a specific OPLAN in the form of CINs and ULNs.  These CINs and ULNs are returned to the IMS.

### 3.3.25   Medical Planning and Execution System

Medical Planning and Execution System (MEPES) was developed in response to the Joint Planning Community's need for a consistent means of predicting and evaluating medical requirements in support of OPLAN development.  MEPES aids the medical planner at both the Joint and Service component level during crisis and deliberate planning processes, and provides a monitoring capability during execution.  MEPES assembles information from many sources so that medical planners and operators can quickly present indications of contingency medical support posture in narrative and graphic form.  MEPES is an integrated kit of automated tools forming an information management system to aid deliberate, program, and crisis action planning; to monitor status of medical support during execution of joint operations; to access the mobilization of medical manpower; to analyze and evaluate medical support plans, programs, and concept of operations; and to support medical planner/operator participation in joint exercises/war games.

The MEPES Manage Medical Reference Data function provides the capability to create and subsequently update Service-approved scenarios for inclusion in the GCCS Medical Reference Database (MRD).  In addition, this function allows the field medical planner to view the various Service-approved scenarios and print them for use in off-line planning activities.

The Manage Population at Risk function allows the medical planner to create and subsequently update Population At Risk (PAR) records.  PAR records are a set of records derived from the GCCS OPLAN TPFDD file, used in the computation of the daily theater troop strength during the MEPES Personnel Losses Generator (PLG) and Medical Planning Module (MPM) computational processes.  PAR records are normally created by combining selected data from the TPFDD with a planner-specified Operations Zone (OPZONE) Sector assignment and combat force or combat support force unit type designation.  PAR records can also be generated by the planner without using a TPFDD.

The Manage Medical Planning Factors function allows the medical planner to create and update planner-defined OPLAN dependent medical parameters required in the execution of the MEPES PLG/MPM computational processes.  The Manage Medical Planning Factors function also builds the MPF tables for an OPLAN.  These planning factors are applied against the OPLAN PAR records in the MEPES PLG/MPM computational routines to simulate the medical impact of an OPLAN execution.

The Manage Medical Working File (MWF) function allows both the Service and Joint medical planner to create up to six uniquely defined MWFs.  The MWF is a specific set of casualty and evacuation planning factors applied against each OPZONE/Sector of a PAR.  The MWF function initiates the MEPES

computational processing and stores the results. In addition, the Joint medical planner uses this function to create the Joint MWF (JMWF). The JMWF is used to establish the total theater level medical support requirements.

The Manage TPFDD function allows the Service and Joint medical planner to develop a time-phased UTC listing of hospital UTCs whose bed mix approximates the bed mix calculated by the MEPES computational process. This function also provides the medical planner with the capability to develop Non-Unit Related Personnel (NURP) and NURC TPFDD data elements for the Strategic Medical Evacuation (STRAT MEDEVAC) TPFDD, the Aeromedical Evacuation (AE) crew Recovery TPFDD, the Supply Class VIIIA (Medical Material) Resupply TPFDD, the Supply Class VIIIB (Blood) Resupply TPFDD, and the AE Related Equipment Recovery TPFDD.

The MEPES Assessments function allows the medical planner to graphically display MEPES-computed medical workload data and medical support requirements. Once the various aforementioned computations have been completed, the planner may then access the Assessments function to prepare various types of graphs. Depending on the data selected, the planner may display data in a pie, line, or bar chart format.

The MEPES Utilities function provides the capability to transfer (Import/Export) the MEPES database to either a Tape or to the Host System.

### 3.3.25.1    Initialization

The MEPES application and main window can be invoked by two methods. The first method is by double clicking the left mouse button on the **MEPES** icon within the GCCS desktop main launch window. The second method is via the JNAV application. For those systems with a GUI-based JNAV window, MEPES is invoked by pressing the **START** icon next to "Medical Planning" within the JNAV Netscape-based GUI window. For those systems with a text-based JNAV window, MEPES is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "Medical Planning" text and pressing <enter>.

### 3.3.25.2    User Inputs

User inputs to the MEPES application are based on operator actions to perform the following:

- Create, update, delete, and print Service approved scenarios for inclusion in the GCCS MRD.

- Create, update, delete, and print PAR records.

- Create and update planner-defined OPLAN dependent medical parameters required in the execution of the MEPES PLG/MPM computational processes.

- Create up to six uniquely-defined MWFs (for the Service medical planner) or up to six uniquely-defined JMWFs (for the Joint medical planner).

- Develop a time-phased UTC listing of hospital UTCs whose bed mix approximates the bed mix calculated by the MEPES computational process.

- Develop NURP and NURC TPFDD data elements for the STRAT MEDEVAC TPFDD, the AE crew Recovery TPFDD, the Supply Class VIIIA Resupply TPFDD, the Supply Class VIIIB Resupply TPFDD, and the AE Related Equipment Recovery TPFDD.

### 3.3.25.3    System Inputs

None.

### 3.3.25.4    Termination

The MEPES application is terminated by pressing the <F12> function key or the **Exit** command button on the MEPES main window.

### 3.3.25.5    Restart

Not applicable.

### 3.3.25.6    Outputs

The MEPES application outputs the following reports:

- OPZONE Planning Worksheet,
- Rejected Records Report,
- PAR Report,
- Medical Planning Factors (MPF) Report,
- Medical Reference Database Report,
- Personnel Losses Report,
- Hospital Admissions Report,
- Returns to Duty Report,
- Evacuees Report,
- Hospital Bed Requirements Report,
- Hospital Bed Availability Report,
- Operating Room Capabilities Report,
- Class VIIIA - Medical Supplies Report,
- Class VIIIB - Blood & Blood Products Report,
- Anesthesiologist Capabilities Report,
- Total Surgeons Capabilities Report,
- General Surgeons Capabilities Report,
- Orthopedic Surgeons Capabilities Report,
- Neurological Surgeons Capabilities Report,

- Thoracic Surgeons Capabilities Report,
- Urologists Capabilities Report,
- Ophthalmologists Capabilities Report,
- Obstetrician & Gynecologists Capabilities Report,
- Psychiatrists Capabilities Report,
- Other Physicians Capabilities Report,
- Total Physicians Capabilities Report,
- Total Dentists Capabilities Report,
- Oral-Maxillofacial Surgeons Capabilities Report,
- Total Nurses Capabilities Report,
- Operating Room Nurses Capabilities Report,
- Nurse Anesthetists Capabilities Report,
- Clinical Nurses Capabilities Report,
- Total Medical Enlisted Personnel Capabilities Report,
- Total Dental Enlisted Personnel Capabilities Report,
- Hospital Beds Required versus Hospital Beds Available Report,
- Evacuation Policy Graph,
- Aeromedical Evacuation Airframe (Aircraft) Equivalents Report,
- Aeromedical Evacuation Crew Member Requirements Report, and
- Aeromedical Evacuation Staging Facility Requirements Report.

### 3.3.26   Message Text Format Editor

Message Text Format Editor (MTF EDIT) provides the operator with the capability to create messages using the United States Message Text Format (USMTF).

#### 3.3.26.1      Initialization

The MTF Edit application is invoked by double clicking the left mouse button on the **MTF EDIT** icon within the main launch window.  The MTF Edit window is displayed as a result of this action.

#### 3.3.26.2      User Inputs

User inputs to the MTF Edit application involve the operator selection of values for various fields that comprise a given USMTF message.  Within a given message some of the fields must be filled in, other fields are conditional based on previous fields, while other fields are optional.

#### 3.3.26.3      System Inputs

None.

#### 3.3.26.4      Termination

The MTF Edit application is terminated by moving the pointer to the File menu on the MTF Edit window and selecting the **Exit** option.

### 3.3.26.5    Restart

Not applicable.

### 3.3.26.6    Outputs

USMTF messages are output from the MTF Edit application.

### 3.3.27   MOSAIC

The MOSAIC utility is a browser that enables operators to review and download documents located on the World Wide Web (WWW) over a Wide Area Network (WAN).  MOSAIC will be used over the SIPRNET as an entry point to the GCCS On-line Access Library (GOAL), which is used to access on-line GCCS documentation such as application user's manuals, etc.  In addition, the GOAL will eventually provide a means for Government and military organizations to update GCCS software segments and documentation.

### 3.3.27.1    Initialization

The MOSAIC application is invoked by double clicking the left mouse button on the **MOSAIC** icon within the main launch window.  The MOSAIC Main Menu will appear as a result of this action.

### 3.3.27.2    User Inputs

The MOSAIC application allows the operator to initiate the downloading/viewing/saving of a specified external file on the WWW, or to view a local file.

### 3.3.27.3    System Inputs

None.

### 3.3.27.4    Termination

MOSAIC is terminated be moving the pointer to the File menu on the MOSAIC Main Menu and selecting the **Exit Program** option.

### 3.3.27.5    Restart

See MOSAIC Initialization.

### 3.3.27.6    Outputs

Outputs from the MOSAIC application include operator-desired downloaded documents and various informational, warning and error messages from the system based on incorrect operator actions or unavailability of specified files and documents.

### 3.3.28  Netscape

Netscape is a COTS product that GCCS uses as the browser for the WWW.  The web has limited interactivity; however, it does have long-term persistence and is capable of easily transmitting large, complex binary files via FTP.  Within the GCCS environment, each command center has its own home page with links to other command centers, including links to special interests.  In addition, Netscape provides upload, download, and usage statistics.  Netscape is invoked by double clicking the left mouse button on the **Netscape** icon within the main GCCS launch window.

### 3.3.29  NewsGroups

Internet News is designed as a network of servers to which clients attach to obtain the latest news-related information.  The COTS client software package provided in GCCS is called NewsGroups X-windows Read News (XRN).  NewsGroups provides text-based, non-real-time news access where multiple NewsGroups can exist simultaneously on the Internet.  This product allows users to select a NewsGroup, select a specific article, follow a given NewsGroup thread, upload files, and download files in text format.  NewsGroups is accessed within GCCS by double clicking the left mouse button on the **XReadNews** icon within the main GCCS launch window.

### 3.3.30  Reference File Administration

Reference File Administration (RFA) provides the capability for the System/Database Administrator to update and maintain reference file tables in the JOPES-related GCCS Core Database. The following reference files have been redesigned from the legacy WWMCCS Reference File structures, included in the JOPES Core Database schema and supported by the RFA software:  Airports (APORTS), ASSETS, CHSTR, Country (CNTRY), GEOFILE, LFF, Ports (PORTS), TUCHA, and Type Unit Detailed Equipment Table (TUDET). The RFA window displays the currently defined Reference Files in the upper half of the window and the currently defined application names in the lower half of the window.  The upper half also contains various action buttons to add a new reference file and delete a reference file.  Action buttons are also present to view the previous file or the next file.  For a selected reference file, the reference file name, reference file path, and data offset are displayed.  The lower half of the window contains action buttons to add a new application, delete an application, view the previous application, view the next application, and add a new machine.  For a selected application, the application name, machine name, and load file are displayed.  At the very bottom of the window are action buttons for saving an updated or newly entered reference file or application, Help, and Quit.

### 3.3.30.1    Initialization

The RFA application and main window can be invoked by two methods. The first method is by double clicking the left mouse button on the **RFA** icon within the GCCS desktop main launch window. The second method is via the JNAV application. For those systems with a GUI-based JNAV window, RFA is invoked by pressing the **START** icon next to "Reference Files Administration" within the JNAV Netscape-based GUI window. For those systems with a text-based JNAV window, RFA is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "Reference Files Administration" text and pressing <enter>.

### 3.3.30.2    User Inputs

User inputs to the RFA application are based on operator actions to add, delete, update, and maintain reference file tables in the JOPES-related GCCS Core Database.

### 3.3.30.3    System Inputs

None.

### 3.3.30.4    Termination

RFA can be exited by clicking on the **Quit** action button within the RFA Tool - Version 2.1 window.

### 3.3.30.5    Restart

Not applicable.

### 3.3.30.6    Outputs

Outputs generated from the RFA application include new and updated reference file tables in the JOPES-related GCCS Core Database.

### 3.3.31   Reference File Manager

Reference File Manager (RFM) is a Technology Insertion Project (TIP) software package that has been incorporated into GCCS. The RFM is a tool that is used for downloading standard reference files such as ASSETS, CHSTR, TUCHA, GEOFILE, etc., from the mainframe to the GCCS server.

### 3.3.31.1    Initialization

The RFM application is invoked by double clicking the left mouse button on the **RFM** icon within the main launch window. The Reference Manager - Version 2.0.7 window will appear as a result of this action.

### 3.3.31.2    User Inputs

The RFM application is initiated by operator action to download Reference Files from the WWMCCS mainframe to the various TIP applications such as DART, LOGSAFE, FAPES, and JFAST.

### 3.3.31.3    System Inputs

None.

### 3.3.31.4    Termination

Click on the red **Quit** command button located on the bottom of the Reference Manager - Version 2.0.7 window.

### 3.3.31.5    Restart

Not applicable.

### 3.3.31.6    Outputs

File transfers of Reference Files (i.e., GEOFILE, TUCHA) between DART, WWMCCS mainframe, LOGSAFE, FAPES, and JFAST via RFM.

### 3.3.32   Requirements Development and Analysis

The Requirements Development and Analysis (RDA) application is used by the Joint community to perform contingency, force deployment, sustainment and deliberate planning.

RDA provides the capability to display available OPLANS, initialize TPFDD files, modify specific TPFDD records, display timelines, display TPFDD summary information including report generation, and delete TPFDD files.  Specific functions within the RDA application include:

- IRM Interface,
- System Utilities Interface,
- Report Generation Access,
- Edit Force Modules,
- Optional Force Module Operations,
- Define New Force Module,
- Add Requirements to Existing Force Module,
- FM Graphics,
- Express Retrievals,
- Timeline Node/Date Operations,
- Update Database,
- View Reference Files,
- Merge & Compare TPFDDS, and

● Help.

### 3.3.32.1    Initialization

The RDA application and main window can be invoked by two methods.  The first method is by double clicking the left mouse button on the **RDA** icon within the GCCS desktop main launch window.  The second method is via the JNAV application.  For those systems with a GUI-based JNAV window, RDA is invoked by pressing the **START** icon next to "Requirements Development & Analysis" within the JNAV Netscape-based GUI window.  For those systems with a text-based JNAV window, RDA is invoked by moving the cursor via <tab> to the START  indicator immediately to the right of "Requirements Development & Analysis" text and pressing <enter>.

### 3.3.32.2    User Inputs

Operator-defined inputs to RDA include:  Creation of and modifications to Force and non-unit requirements, TUCHA file updates, transportation flow analysis, ULN sourcing, and Force Module creation.

### 3.3.32.3    System Inputs

System inputs to the RDA application include changes to OPLANS, Reference Files, and GSORTS, which are immediately available upon initialization.

### 3.3.32.4    Termination

RDA termination procedures involve selecting the **Exit** option under the RDA menu within the RDA main window.

### 3.3.32.5    Restart

Not applicable.

### 3.3.32.6    Outputs

Outputs consist of OPLAN requirements and changes made to any of the user-defined or system inputs.  The outputs are sent to the GCCS integrated database.

### 3.3.33  Navy Reserve Unit Data Resource System

The Navy Reserve Unit Data Resource System (RUDRS) provides an automated method whereby Commander Naval Reserve Force (COMNAVRESFOR) can provide Naval Reserve Force (NRF) unit data to Fleet CINCs (FLTCINCs) for both reserve commissioned and reserve augmentation units for use in both deliberate and execution planning.  RUDRS accepts data maintained in the COMNAVRESFOR Reserve Training Support System (RTSS) and makes NRF data available via database structure.  In addition, RUDRS

provides an automated way to update TPFDD files with Naval reserve data to source OPLANS. The interface provides the capability for FLTCINCs to generate reserve augmentation requirements based on TPFDD requirements. RUDRS also requires an interface to the GEOLOC and TUCHA files for NRF data validation. The RUDRS application is comprised of two modes of operation: NRFL Interface Mode (also known as front-end processing) and CINC-NRFL/TPFDD Mode (also known as back-end processing).

Specific RUDRS front-end functionality includes:

- Audit Log Review of all NRFL Transactions,
- Create and Initialize NRFL Database,
- Create RTSS Database,
- NRFL Data Extract,
- Automated RTSS Data Retrieval,
- On-line NRFL Record Editing,
- NRFL Database File Query,
- Formatted Report Generation based on NRFL data,
- Transaction Summary,
- NRFL Database Maintenance,
- Change Password, and
- Switch to Back-End Mode.

Specific RUDRS back-end functionality includes:

- Audit Log Review of all CINC-NRFL Transactions,
- Create and Initialize CINC-NRFL Database,
- Create and Update TPFDDs from RTSS Database,
- CINC-NRFL Data Extract,
- Generate Navy Reserve Augmentation,
- Update Destination File,
- CINC-NRFL Database File Query,
- CINC-NRFL Database Maintenance,
- Change Password, and
- Switch to Front-End Mode.

### 3.3.33.1 Initialization

Both the RUDRS Front-End and Back-End Modes and their associated main windows are invoked by double clicking the left mouse button on the appropriate icons within the GCCS desktop main launch window. The icon denoted as "RUDRS" is used to invoke the Front-End RUDRS Mode and the icon denoted as "RUDRSBCK" is used to invoke the Back-End RUDRS Mode.

### 3.3.33.2 Inputs

Inputs to the RUDRS application are based on operator actions to perform the following:

- Specify sequence to view Audit Log of NRFL,
- Send Audit Log to screen or designated printer,
- Create and Initialize, or modify NRFL Database,
- Create or modify RTSS Database,
- Create or modify RTSS TPFDDs,
- Create or modify Destination File records, and
- Generate applicable reports (see Reports listed in the Outputs section).

### 3.3.33.3    System Inputs

None.

### 3.3.33.4    Termination

Both the Front-End and Back-End RUDRS applications are terminated by selecting the **Exit** option under the System menu within the respective RUDRS Mode main windows.

### 3.3.33.5    Restart

Not applicable.

### 3.3.33.6    Outputs

The RUDRS application produces the following outputs:

- Newly created or updated NRFL Database;

- Newly created or updated RTSS Database;

- Reports based on updates to NRFL/RTSS Databases;

- TPFDDs based on valid RTSS data;

- Reports based on RTSS records with invalid GEOLOCs and UTCs that were not written to the TPFDD;

- Naval Reserve Data Extracts;

- Reports based on Naval Reserve Data Extracts;

- TPFDD updates based on combination of RTSS data and information extracted from an active duty TPFDD;

- Reports based on ULNs for all active duty TPFDDs that contain the same UIC;

- Reports containing onboard versus allowance and readiness for CINCLANTFLT, CINCPACFLT, CONUS, USMC or All (Selected Reserves) based on Gaining Command Code (GCC) entered;

- Reports based on accepted input TPFDD records that are not found in the RTSS Database;

- Reports based on errors incurred during TPFDD update process; and

- Newly created or modified Destination File entries.

### 3.3.34   Scheduling and Movement

The Scheduling and Movement (S&M) application provides for improved in-transit tracking of all land, sea, and air carriers independent of OPLAN execution.  In addition, it allows operators to enter carrier data, itineraries and cargo allocations and manifests into the database.
S&M users can review, edit, or create the schedules of non-cargo capable carriers and the schedules and cargo allocations of cargo capable carriers moving by air, land, or sea, as provided by the Air Mobility Command (AMC), the Military Traffic Management Command (MTMC), and the Military Sealift Command (MSC).

### 3.3.34.1     Initialization

The S&M application and main window can be invoked by two methods.  The first method is by double clicking the left mouse button on the **S&M** icon within the GCCS desktop main launch window.  The second method is via the JNAV application.  For those systems with a GUI-based JNAV window, S&M is invoked by pressing the **START** icon next to "Scheduling & Movement" within the JNAV Netscape-based GUI window.  For those systems with a text-based JNAV window, S&M is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "Scheduling & Movement" text and pressing <enter>.

### 3.3.34.2     User Inputs

User inputs to the S&M application include:  Modifications to carrier data elements, allocations, manifests, itineraries, remarks, and generation of scheduling reports.

### 3.3.34.3     System Inputs

TPFDDs sent from JOPES and various reference files including GEOFILE, TUCHA.  Additional inputs include external system feeds of S&M associated data.

### 3.3.34.4     Termination

Termination of S&M can be initiated from any S&M window by clicking on the F12 exit button.

### 3.3.34.5    Restart

Not applicable.

### 3.3.34.6    Outputs

Outputs from the S&M application include:  Modifications to carrier data elements, allocations, manifests, itineraries, and remarks.

### 3.3.35  TARGET

TARGET functionality facilitates simultaneous access to a distributed network of graphic planning cells that share a common reasoning infrastructure.  These tools provide rapid planning and Course of Action (COA) development and analysis among any number of Joint Planning and Execution Community (JPEC) sites.  This enables concurrent assessment, plan generation, scheduling, and analytical processes between the Joint Staff, supporting CINCs, their components, and the deployed JTF.  These utilities aid the planner in all phases of crisis planning including situation assessment and development, COA development and selection, execution planning, and physical execution.  Major features of TARGET include:  TARGET Workbench, Desktop Video, Multi-media Conference (MMConf), Shared Map Planning (SMP), Analysis Tools, and Media Integrators.

- TARGET Workbench supports rapid access to existing documents, document building, building the Commander's Estimate, applying artificial intelligence in COA development, graphically portraying a crisis situation with information icons on maps, and preparing briefings.

- Desktop Video provides action officers a direct video and audio connection between supported, supporting, and subordinate commands.

- MMConf supports real-time sharing of analysis results, information briefings, intelligence, and weather imagery between commands.

- SMP supports sharing of maps, charts, and geodesy, including live, collaborative map briefings, and land/air/sea maneuver planning.

- Analysis Tools include:  Logistics Generator (LOGGEN), Non-Combatant Evacuation Operation (NEO) risk analysis, Course of Action Trade-Off Analysis (COATA), and Course of Action Selection Tool (COAST).

- Media Integrators contain an image viewer, sound interface, message interceptor, document browser, and weather animator.

### 3.3.35.1    Initialization

The TARGET application is invoked by double clicking the left mouse button on the **TARGET** icon within the main launch window.  The TARGET Main: Version 2.0 window is displayed as a result of this action.

### 3.3.35.2    User Inputs

The Import function on the File menu allows the user to import various media into a given TARGET operation/plan.  Items that can be imported include:  documents, messages (Embassy SITREP, Warning Order etc.), images (pictures or Raster files), databases, sound byte files, or Shared Map Planning (SMP) overlays.

The COAST functionality within TARGET allows for various operator inputs for COA planning and evaluation.  These inputs include:  general mission criteria, desired end-state (results), mission assumptions/constraints, critical intelligence requirements, expected enemy courses of action, etc.

### 3.3.35.3    System Inputs

None.

### 3.3.35.4    Termination

TARGET functionality is terminated by moving the pointer to the File menu on the TARGET Main: Version 2.0 window and selecting the **Quit** option.

### 3.3.35.5    Restart

Not applicable.

### 3.3.35.6    Outputs

Outputs from the TARGET application include:  real-time sharing of COA analysis results, information briefings, intelligence, and weather imagery, sharing of maps, charts, and geodesy, including live, collaborative map briefings, and air/land/sea maneuver plans.

**4.0    ERROR MESSAGES**

See applicable User's Manuals and Guides listed in Section 2 of this document.

## 5.0    ACRONYMS

| | |
|---|---|
| ACT | Activity |
| ADAM III | Aerial Port Documentation and Management System III |
| ADRG | Arc Digitized Raster Graphics |
| AE | Aeromedical Evacuation |
| AFS | Airfields |
| AHQ | Ad-Hoc Query |
| ALERTD | Alert Daemon |
| AMC | Air Mobility Command |
| AMHS | Automated Message Handling System |
| AOR | Area of Operational Responsibility |
| APORTS | Airports |
| APP | Application |
| ASSETS | Assets for Planning Reference Files |
| ATO | Air Tasking Order |
| ATOCONF | ATO Confirmation |
| AUTODIN | Automated Message Handling System |
| | |
| BCST | Broadcast Manager |
| BDS | Briefing Display System |
| BIDE | Basic Unit Identity Data |
| | |
| C-DAY | Deployment Operation Commencement Day |
| C2 | Command and Control |
| CAC | Compressed Aeronautical Chart |
| CAT | Crisis Action Team |
| CD | Compact Disk |
| CEF | Civil Engineering File |
| CESP | Civil Engineering Support Plan |
| CHRONLOG | Chronological Log |
| CHSTR | Characteristics of Strategic Transportation Resources |
| CIN | Cargo Increment Number |
| CINCs | Commanders-in-Chief |
| CMD | Command |
| CMPNT | Component |
| CNTRY | Country |
| COA | Course of Action |
| COAST | Course of Action Selection Tool |
| COATA | Course of Action Trade-Off Analysis |
| COE | Common Operating Environment |
| COMMS | Communications |
| COMNAVRESFOR | Commander Naval Reserve Force |

| CONTROL | System Controller |
|---|---|
| COTS | Commercial off-the-shelf |
| CTAPS | Contingency Theater Automated Planning System |

| DAAS | Defense Automatic Addressing System |
|---|---|
| DART | Dynamic Analysis and Replanning Tool |
| DB | Database |
| DCW | Digital Chart of the World |
| DDN | Defense Data Network |
| DFSC | Defense Fuel Supply Center |
| DIA | Defense Intelligence Agency |
| DICTION | Data Dictionary |
| DISPLAY | Custom Display |
| DMAAC | Defense Mapping Agency Aerospace Center |
| DMDC Defense Manpower Data Center |
| DMS | Defense Message System |
| DNC | Digitized Nautical Chart |
| DoD | Department of Defense |
| DODIC | Department of Defense Identification Code |
| DODIIS | DoD Intelligence Information System |
| DOS | Disk Operating System |
| DPS | Distributed Processing System |
| DTG | Date-Time-Group |
| DTS | Defense Transportation System |

| EAD | Earliest Arrival Date |
|---|---|
| ECAPB | Engineering Capability |
| EM | Executive Manager |
| EMCON | Emission Control |
| ESI | External System Interface |
| EVAC | Evacuation File Maintenance and Retrieval System |

| FAA | Federal Aviation Administration |
|---|---|
| FAPES Force Augmentation Planning and Execution System |
| FMEDIT | Force Module Edit |
| FOTC | Force Over-The-Horizon Track Coordinator |
| FRAS | Fuel Resource and Allocation System |
| FRN | Force Requirement Number |
| FTP | File Transfer Protocol |

| GARC | GCCS ATO Review Capability |
|---|---|
| GCCS | Global Command and Control System |
| GDSS | Global Decision Support System |
| GEOFILE | Geographical Location File |

| | |
|---|---|
| GEOLOC | Geographical Location |
| GES | GCCS Executive Subsystem |
| GIQS | Generalized Interactive Query System |
| GOAL | GCCS On-line Access Library |
| GRIS | GCCS Reconnaissance Information System |
| GSORTS | GCCS Status of Resources and Training System |
| GTN | Global Transportation Network |
| GUI | Graphic User Interface |
| | |
| HIT | High Interest Track |
| HMI | Human Machine Interface |
| | |
| ICAO | International Civil Aeronautics Organization |
| ICM | Input Communications Manager |
| ID | Identification |
| IEEE | Institute of Electrical and Electronics Engineers |
| IFF | Identification Friend or Foe |
| ILOG | Incoming MessageLog |
| IMRAS | Individual Manpower Requirements and Availability System |
| IMS | Information Management Subsystem |
| IRC | Internet Relay Chatter |
| IRM | Information Resource Manager |
| | |
| JCS | Joint Chiefs of Staff |
| JDC | Joint Deployment Community |
| JDISS | Joint Deployable Intelligence Support System |
| JEPES | Joint Engineer Planning and Execution System |
| JFAST | Joint Flow Analysis System for Transportation |
| JIC | Joint Intelligence Center |
| JMCIS | Joint Maritime Command Information System |
| JMIE | Joint Maritime Intelligence Element |
| JMWF | Joint Medical Working File |
| JNAV | JOPES Navigation |
| JOPES | Joint Operations Planning and Execution System |
| JPEC | Joint Planning and Execution Community |
| JPEC | Joint Planning and Execution Community |
| JSPS | Joint Strategic Planning System |
| JTF | Joint Task Force |
| | |
| L-HOUR | Hour Movement Begins on C-DAY |
| LAD | Latest Arrival Date |
| LAN | Local Area Network |
| LFF | Logistics Factors File |
| LOC | Location |

| | |
|---|---|
| LOGGEN | Logistics Generator |
| LOGSAFE | Logistics Sustainment Analysis and Feasibility Estimator |
| LRC | Lesser Regional Contingency |
| LSA | Logistics Sustainability Analysis |
| | |
| MEDEVAC | Medical Evacuation |
| MEPCOM | Military Entry Processing Command |
| MEPES | Medical Planning and Execution System |
| MEPRS | Military Entrance Processing and Reporting System |
| METS II | Mechanized Export Traffic System II |
| MISC | Miscellaneous |
| MM | Message Manager |
| MM | Multi-Media |
| MOE | Map Overlay Editor |
| MONITOR | System Monitor |
| MPF | Medical Planning Factors |
| MPM | Medical Planning Module |
| MPS | Message Processing System |
| MRC | Major Regional Contingency |
| MRD | Medical Reference Database |
| MSC | Military Sealift Command |
| MSG | Message |
| MSPS | Mobilization Stationing and Planning System |
| MTF | Message Text Format |
| MTF EDIT | Message Text Format Editor |
| MTMC Military Traffic Management Command | |
| MWF | Medical Working File |
| | |
| NEO | Non-Combatant Evacuation Operation |
| NETEX | Network Executive |
| NMCC | National Military Command Center |
| NOFORN | No Foreign |
| NRF | Naval Reserve Force |
| NRG | Notational Requirements Generator |
| NSN | National Stock Number |
| NTCS-A | Naval Tactical Command System - Afloat |
| NURC | Non-Unit Related Cargo |
| NURP | Non-Unit Related Personnel |
| | |
| OCM | Output Communications Manager |
| OPLAN | Operational Plan |
| OPZONE | Operations Zone |
| OSS | Operations Support System |
| OTH | Over-The-Horizon |

| | |
|---|---|
| PAR | Population At Risk |
| PCM | Program Communications Manager |
| PDR | Pre-Defined Report |
| PHONE | Telephone List |
| PIN | Personnel Increment Number |
| PLG | Personnel Losses Generator |
| PLNGFACT | Planning Factor |
| PLOG | Position Log |
| POD | Port of Debarkation |
| POE | Port of Embarkation |
| POL | Petroleum, Oil and Lubricants |
| PORTS | Ports |
| POSF | Ports of Support File |
| PRAMS | Passenger Reservation and Manifesting System |
| PROFILES | Profile Manager |
| | |
| RCCPDS | Reserve Component Common Personnel Data System |
| RDA | Requirements Development and Analysis |
| RDP | Rapid Deployment Planning |
| RFA | Reference File Administration |
| RFM | Reference File Manager |
| RIMS | Registrant Information Management System |
| RIPS | Reconnaissance Information Processing System |
| RREM | Run Remote |
| RTSS | Reserve Training Support System |
| RUDRS | Reserve Unit Data Resource System |
| | |
| S&M | Scheduling and Movement |
| SA | System Administrator |
| SECURITY | Security Manager |
| SIP | Secret Interface Processor |
| SIPRNET | Secret Internet Protocol Router Network |
| SITREP | Situation Report |
| SLCT | Select |
| SMP | Shared Map Planning |
| SORTS | Status of Resources and Training Systems |
| SQL | Structured Query Language |
| SRO | Sensitive Reconnaissance Operations |
| SSN | Social Security Number |
| SSR | System Services Remote |
| SSS | Selective Service System |
| STRAT | Strategic |
| | |
| TAR | Transcribe Archive Record |

| | |
|---|---|
| TARGET | Theater Analysis and Replanning Graphical Execution Toolkit |
| TCC | Transportation Component Command |
| TCN | Transportation Control Number |
| TDBM | Tactical Database Manager |
| TEDIT | Template Editor |
| TERMS | Terminal Management System |
| TFE | Transportation Feasibility Estimator |
| TGT | Target |
| TIP | Technology Insertion Project |
| TLCF | Teleconferencing |
| TOT | Time Over Target |
| TPFDD | Time-Phased Force Deployment Data |
| TSS | Time-sharing System |
| TUCHA | Type Unit Characteristics File |
| TUDET | Type Unit Detailed Equipment Table |
| | |
| UB | Unified Build |
| UCFF | UTC Consumption Factors File |
| UI | Unit Information |
| ULN | Unit Line Number |
| UMD | Unit Movement Data |
| USERID | User Identification |
| USMTF | United States Message Text Format |
| USTRANSCOM | United States Transportation Command |
| UTC | Unit Type Code |
| | |
| VDD | Version Description Document |
| | |
| WAN | Wide Area Network |
| WIS | WWMCCS Information System |
| WPS | Worldwide Port System |
| WWMCCS | Worldwide Military Command and Control System |
| WWW | World Wide Web |
| | |
| XREF | Cross Reference |
| XRN | X-windows Read News |
| XTERM | X-Terminal |
| | |
| YR | Year |